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ABSTRACT

This book is intended to provide background information for people interested in school television; for producers and editors of educational broadcasts worldwide; and newcomers, information seekers, and researchers in the field of educational broadcasting. Material in the book is presented in seven "chapters" or sections: Chapter 1--a summary report of a survey of educational broadcasting, predominantly in western Europe, which was conducted by the European Broadcasting Union's (EBU) Working Party for Educational Programs; Chapter 2--the contributions by symposium participants on the topic "School Television in the 90s"; Chapters 3, 4, and 5--articles on the topics "School Television and the Teacher," "Support Services for School Television," and "Models of International Cooperation and Coproduction"; Chapter 6--24 case studies of successful school television programs or descriptive accounts of developments in specific subject areas including science education, mathematics, health, nature and environment, mother tongue, foreign languages and communication skills, history, current affairs and civics, and media education; and Chapter 7--recently completed works on school television research. Further information is contained in an alphabetical index of notes about the contributors, references to the overviews and reports, and a list of abbreviations and acronyms that denote European broadcasting organizations. (ALF)

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Aspects of School Television in Europe

A Documentation

ited by
nfred Meyer

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A Documentation

Edited by
Manfred Meyer

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A similar book on "Aspects of Educational Television for Adults" is also being prepared for publication in this series in 1992.

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Preface

This book is about school television in Europe in a period of profound and far-reaching changes to the broadcasting landscape everywhere. In almost all European countries, broadcasting legislation has undergone substantial transformations – following on technological innovations and political developments. As a result, both the public service broadcasting corporations and the state-controlled broadcasting organisations have lost their monopoly and are now being forced to compete for the favour of the audience with commercially-oriented programme providers. How is educational broadcasting in general and to what extent is school television in particular affected?

These changes of the media environment go hand in hand with new challenges to the educational systems not only in the Eastern European world that is now confronted with the necessity of total re-orientation. In Western industrialized countries, too, we are witnessing clear calls for reforms of the traditional educational institutions everywhere, especially in view of the rapidly growing demands of our economic system. In several countries the question has been raised whether school television has some answers to all that, or even whether the continuation of its services can be justified at all.

This book is intended to provide arguments and background information for those who are confronted with these questions. It is also meant to be a source of information for producers and editors of educational broadcasts in other parts of the world who welcome suggestions and ideas from their colleagues in European countries. Furthermore, it is directed at newcomers in the field, information seekers and researchers, and all those who look for orientation and seek contacts with people to whom broadcast television has always been more than a pursuit of economic or political interests or an instrument for flat mass entertainment interspersed with commercials.

Background

In 1989/90, a survey on the situation of educational broadcasting in Europe was carried out by the author on behalf of, and in cooperation with, the European Broadcasting Union's Working Party for Educational Programmes who wanted back-up material for their future operations in view of the European developments. (Survey results relating to the situation of school television are summarized in the first chapter of this book.)

In connection with this survey a wealth of information has been received not only on the situation and the organizational framework of educational broadcasting in Europe but also on a variety of programme activities targeted at many different kinds of audiences and social groups, on cooperative efforts and programme support activities, on feedback methods and research findings, etc.

Moreover, it turned out that there is a pile of so-called 'grey literature' relevant to our field, made up of papers written and prepared for various purposes but hardly accessible on an international scale, such as conferences papers that have never been published, articles written for journals not widely spread or known, or reports written in languages not commonly understood within the community of educational broadcasters and researchers (e.g. Dutch, Italian or Swedish).

With all this heterogeneous material, we asked ourselves how the current state of the art in European school television could best be documented, and it was felt that the most suitable form to reflect its broad spectrum and its diversity could be a text book or reader consisting of contributions by the practitioners themselves, such as editors, producers, liaison or education officers, researchers or any other person actively engaged in the field.With some exceptions, most of our contributors to the individual chapters that follow are specialized editors who have worked for some years or even decades in educational broadcasting. They know what they are talking about when asked to report on their experience of producing television programmes that have to be accepted by a highly specific child audiences, but that have also to convince the practising teacher acting as the intermediary.

We also remained within our original frame of reference that was set up for the survey. This means that almost all of our contributors have been working with, or affiliated to, member organizations of the EBU Working Party, and that this documentation illustrates the state of the art of school television in Europe as it is constituted by these organizations.

With the exception of Andor Nagy's contribution, this book does not include information on educational television in eastern parts of Central Europe (i.e. in member countries of the OIRT), nor on educational television broadcast by organizations outside Europe that adhere to the principles of public service broadcasting, e.g. in Canada, Japan, or Australia.

The choice of material

The first suggestions and ideas came from the answers to two questions that were included in our survey questionnaire. There we asked, among other things: "From all of your programmes produced within the last few years which ones do you think have been the most noteworthy, most important or most interesting (e.g. in terms of success with the audience, outstanding format, breaking down old barriers etc.) . . . Which are your most important programme projects for the near future, if there are no radical changes?"

The information obtained in this way was mostly accompanied by fact sheets, information leaflets, and background information on educational series or programmes that have been awarded prizes, achieved special attention, or found noteworthy as a milestone in a department's work.

When we wrote for further information or called for contributions to the book, it showed that the interest in this project and the readiness to collaborate were tremendous, and the echo was overwhelmingly positive. What was originally intended to be only a part of a reader entitled "Aspects of Educational Television in Europe" has now grown into a comprehensive volume of texts on a range of salient issues in European school television.

Admittedly, I did not get all the contributions that I wanted. There were unexpected hindrances or events such as a baby to be given birth to, the move to another building, the internal problems in connection with re-organization of the department, a car accident to be overcome etc. But there were also some who answered sadly and with resignation that any report on their work could only have been of interest to the historians: while this publication was being prepared, both DR in Denmark and NDR in northern Germany abolished their school television services, and we all know that in the 70s and 80s the work of the colleagues there was among the outstanding achievements in the field.

About the contents

Chapter 1 contains a summary report stemming from the survey mentioned above. An attempt is made to describe and to illustrate the situation of educational television in Europe (predominantly Western Europe) in the late 80s, with particular reference to the work of broadcasting organizations that are active members of the EBU and represented its Working Party for Educational Programmes.

While working in 1990 on a compilation of texts that look backward to the 80s, it was also a question of how the preparation for the next decade could best be presented in this reader. What came up was the idea of the symposium on "School Television in the 90s" presented in Chapter 2, with contributions of colleagues responsible for running school television departments or known as subject-matter experts.

At the 27th EBU Seminar on School Television in 1989, Kees Schippers from NOT, then Teaching Director and Chairman of the Seminar, gave an introductory talk under the heading "For a Better Future for School Television: Back to School – Or: Strategies for a Better Position for School Television in the Future." He provided me with a revised and abridged version of his talk which I used to set the tune, as it were, for a simulated panel discussion on the future of school television in the nineties.

Most of the contributors to our symposium responded to it: Lothar Humburg as head of the West German school television, Terry Marsh from the BBC and Hans Jörg Vogel from the Bayerischer Rundfunk who were both appointed heads of their school television departments when this book was being prepared, and, similarly, Pierre Trincal who in France was called upon to adapt the huge organization of CNDP to future needs.

Verena Doelker and her collaborators Felix Brugger and Werner Frei were asked to report on the forward-looking model of cooperation with the educational authorities in German-speaking Switzerland, whereas both Christian Raynaud's and Andor Nagy's papers reflect their concern with the threats to school television in times and under conditions where its proper use and future support would be beneficial if not indispensable for the educational environment.

In Chapters 3 to 5, contributions have been subsumed under chapter headings such as School Television and the Teacher, Support for School Television Services, and Models of International Cooperation and Coproduction. It was felt that these specific aspects are among the most salient issues currently under discussion.

Chapter 6 contains 24 case studies of successful school television programmes or descriptive accounts of developments in particular subject areas. They are loosely grouped under headings such as Science Education and Mathematics; Health, Nature and Environment; Mother Tongue, Foreign Languages and Communication Skills; History, Current Affairs and Civics; and Media Education.

Finally, in the seventh Chapter I have put together some recently completed work that was available under the heading of school television research, most of it updated and/or abridged versions of literature published in other connections (as to the sources, see footnotes to the individual articles).

The references to these overviews and reports are put together in a bibliographical annex which by itself represents the core of a comprehensive research bibliography that is being compiled in the Institute. It is followed by the usual alphabetical arrangement of notes about our contributors.

A list with abbreviations and acronyms that are commonly used to denote European broadcasting organizations and internationally known bodies can be found at the end of this book.

Follow-up publications

A second book is in preparation under the working title "Aspects of Educational Television for Adults". It is to cover the broader field of educational or educative programmes for the general public, of televised courses for continuing education, educational series and magazines for specific target audiences, and any other activities of educational broadcasters in out-of-school areas and non-formal education.

A German version of the book on "Aspects of School Television" is expected to be ready by the end of 1992. Negotiations are being conducted with the Centre National de Documentation Pédagogique in Paris about a partnership edition in French.

In addition, a bibliography will be forthcoming on educational broadcasting in Europe, focusing on the literature on educational programming and on research into educational television.

Acknowledgements

Firstly, I should like to take this opportunity to thank all those who have contributed to the entire project, either by answering a voluminous questionnaire or by sending us piles of material or by promoting our search for authors and contributors.

Above all, my thanks are due to the numerous contributors to this book. They were all very helpful in complying with my requests and in sending the contributions in time in spite of an overload of work most of them had to cope with.

I apologize to all those I did not contact or failed to trace and who would have very much liked to present their projects or express their views. There will be similar publications, and suggestions are always welcome.

We have compiled texts from ten different countries in six different language areas. This means that we depended more than ever on the skill and expertise of translators and linguistic advisers. I should like to acknowledge the excellent work of Geoffrey P. Burwell, John Malcolm King, Norman Jones and Philip Gill (all living in Munich), and of all those who assisted our authors who had agreed to contribute their papers in English.

Finally, I owe thanks to my colleagues in the Institute. Without their helpful cooperation this book would never have come out.

Munich, May 1992 Manfred Meyer

Chapter 1
European School Television in the Late Eighties

Manfred Meyer

On the Situation of School Television in Western Europe: Summary of Results of a Survey*

Introduction

This contribution is based on previous reports by the author that describe – from differing points of view – the situation of educational television predominantly in Western European countries.[1] The frame of reference is the state of the art of educational programme output of those broadcasting organizations that are members of the European Broadcasting Union (EBU) and represented in its Working Party for Educational Programmes, since most of the information referred to results from a questionnaire survey that was carried out by the author on behalf of, and in cooperation with, the EBU Working Party.

The data was collected during the first months of 1989. Supplementary data reached us, however, during the following months, and I owe thanks to all those who provided me regularly or occasionally with material that indicated substantial or noteworthy changes.

Questionnaires were sent to broadcasting stations which regularly participate in the activities of the EBU Working Party. The return was slow and in a few cases even unsatisfactory, for reasons which by themselves illustrated the changing situation in the two years that followed our inquiry: either school television services were abolished (e.g. in Denmark and Northern Germany); or the whole situation was totally unclear due to changes to be expected in connection with the amendments of the broadcasting legislation (e.g. in the UK, in Sweden and in Israel); or there was a public debate over the disastrous consequences of deregulation and privatisation for the entire audio-visual or mass communication culture as in France. I shall come back to this later.

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* Acronyms and abbreviations used in this article are listed on the last pages of this book.

[1] Cf. Meyer, Manfred: On the Situation of Educational Television in Europe. A Summary Report, München: IZI 1990 (June); Meyer, Manfred: Some Aspects of Educational Broadcasting in Europe. Paper presented at the Colloquium 'Educational Media – the European Opportunity', Educ. Media Association of Ireland; Dublin, June 1991.

In quite a few cases, we received few replies to our questions but a pile of information material on all sorts of educational programming. The material collected, however, was so heterogeneous that the original idea to publish a kind of directory for existing school TV services had to be modified. Instead, a comprehensive documentation and information project on multiple aspects of educational broadcasting was conceived of which this report is one outcome.

In December 1989, a short summary report – considered to be of a preliminary nature – was prepared for the participants of the 27th EBU International Seminar in Basle that was – as always in years with odd numbers – dedicated to European school television. This first report tried to illustrate the situation of school television in (predominantly Western) Europe and compiled some of the data obtained according to certain aspects of school television that were proposed by Kees Schippers, then President of the Basle Seminar, as guidelines for the discussions in plenary sessions and working groups, e.g. school television services and their relationship with the educational authorities, airtime and budget resources, media production, promotion and research.

Our survey did not attempt to include information on school television in Eastern Europe or on school television services outside Europe (e.g. in Canada, Japan, and Australia), although "a look over the fences" had been made for comparison and found worthwhile.

The EBU/UER frame of reference[2]

As of autumn 1989, educational television services were offered by member organizations of the European Broadcasting Union in the following European countries:

> Austria, Belgium, Denmark, Finland, France, Germany (Federal Republic), Greece, Iceland, Ireland (Eire), Italy, Malta, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and Yugoslavia.[3]

With the exception of Iceland and Malta, all of these countries are represented in the EBU Working Party for Educational Programmes, which constituted the frame of reference for the study on which the following observations are based. It was said that the membership of Danmarks Radio (DR) might be cancelled, since the educational broadcasting department was abolished at the beginning of 1989. Other member organizations of the Working Party not included here are the Australian Broadcasting Corporation (ABC), the Corporation for Public Broadcasting (CPB) in the USA, and – since 1990 – Japan (NHK), Hungary (MTV), Poland (PRT) and Czechoslovakia (CST).

---

[2] The Educational Broadcasting Union is known under two acronyms, i.e. EBU for its English title, and UER for either 'Union Européenne de Radiodiffusion' or 'Union Europäischer Rundfunkanstalten'.

[3] Up to now, no detailed information has been received on the status of educational broadcasting in Cyprus and Turkey.

Of the active non-European EBU members in the Mediterranean area, i.e. Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco and Tunisia, the Working Party was only joined by Israel Educational Television (IETV).

There is great diversity of educational broadcasting services in these countries; differences are determined, among others, by such factors as

- coverage (national, regional);
- linguistic diversity (multilingual societies, language minorities);
- complexity of the broadcasting system (degree of competition, federal structure etc.);
- legal status of broadcasting organizations (governmental, public service, private).

In border regions, many of the broadcasting services considered here have for years been capable of reception beyond the intended coverage areas. Media researchers talk about overspill, and they differentiate between in-spill countries (e.g. Austria, Switzerland or Ireland) and out-spill countries (e.g. Germany or the UK). It has to be assumed that these factors play a certain role also in the planning of educational programmes. Moreover, with the growing use of satellite and cable distribution systems, frontiers hitherto established for broadcasting areas become more and more obsolete.

The most severe challenges to educational broadcasting, however, resulted from legislation acts of demonopolization and deregulation that have taken place in almost all European countries within the last few years. This led in many countries to revenues from advertising being reduced or entirely cut for public broadcasting organizations.

So it is to be expected that some of the distinctions made here will be of historical interest only. They are, however, still determinants for policy issues and for organizational frameworks such as the EBU Working Party.

The scope and coverage of educational broadcasting services

In most of the countries mentioned, there are single educational broadcasting services with nation-wide or country-wide coverage, usually operated by special departments of national broadcasting organizations. This is the case in

Austria (with the ORF Department 'Wissenschaft und Bildung'),
Finland (YLE: Department of Educational Television),
Greece (ERT: Educational Television Department),
Ireland (RTE: Education Department),
Italy (RAI: Dipartimento Scuola Educazione),
Norway (NRK: Educational Department), and
Spain (TVE: Departamento de Programas Educativos).

We find more complex situations in the United Kingdom, in France and in the Federal Republic of Germany, as far as national coverage is concerned. In these countries, which are dealt with in the next chapter, most of the national audience is served by more than one educational broadcasting service with clearly distinguishable features.

In the United Kingdom these are BBC Education and the educational output of the Independent TV companies coordinated and monitored by the Independent Television Commission (ITC), the former Independent Broadcasting Authority (IBA).

In France, educational programmes are mainly produced by FR3 Lorraine Champagne Ardenne in Nancy. They are transmitted regionally, i.e. over the FR3 channels. Also transmitted over the regional FR3 channels are the programmes for schools that are produced by the Centre National de Documentation Pédagogique (CNDP), a national centre associated to the French Ministry of Education.

In Germany two or more different regional services can be received, over the air as well as through cable networks, in huge parts of the country, served by the ARD-affiliated regional stations and the ZDF.

Rather different is also the situation in the Netherlands, with three organizations that are exclusively created to provide educational broadcasting for the whole country:

Nederlandse Onderwijs Televisie (NOT) for school television, TELEAC Foundation and RVU Educatieve Omroep for adult education programmes.[4]

We also find specific educational broadcasting organizations in

Sweden (Sveriges Utbildningsradion, SR/UR) and in
Israel (Israel Educational Television, IETV).

More than one educational television service is or was offered in the multilingual countries, such as:

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[4] The three organizations operate under the umbrella organization EDUCOM.

Belgium (with BRT Instructieve Omroep, now BRTN, for the Flemish-speaking population, and RTBF Service Education-Jeunesse Télévision Scolaire, for the French-speaking part of the country);
Switzerland (with three different educational services for the different language areas broadcast by SRG/DRS, SSR/TSR, and SSR/TSI);
Yugoslavia (with the 8 broadcasting organizations that served the individual republics within the former federation, joined together in Jugoslovenska Radiotelevizija, JRT).

In some countries, specific educational services were or still are provided for language minorities, e.g. in

Finland, where YLE ran a department for educational broadcasts in Swedish (Svenska Utbildningsprogrammen) until June 1989;
the United Kingdom, with BBC school broadcasting services for the National Regions of Scotland, Wales, and Northern Ireland;
the Catalan region of Spain, where a video distribution service for Catalan teaching material (including dubbed school television programmes) is organized by the regional ministry.

Complexity and diversity: Educational television in selected European countries

Going from North to South, from Scandinavia to the Mediterranean countries, here is a tour d'horizon of the set-up for school television services in the main European areas. Far from being exhaustive, these accounts are meant to illustrate the diversity of educational broadcasting in Europe, reaching from a complex, complementary system as in the UK to straightforward state institutions providing audio-visual supply for the formal educational system by means of government-run broadcasting organizations as in Greece or Italy.

Finland

In Finland, after commercial TV has been introduced, Finnish Broadcasting Company YLE will no longer be entitled to commercial revenue, which means filling the entire airtime on its channel with less money. There was a need to restructure the educational department; more programmes are now commissioned to outside producers. The Swedish Educational Department of YLE that provided programmes for the Swedish-speaking language minority in Finland both on radio and on TV was abolished in June 1989.[5]

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[5] It was replaced by a radio sub-department and television sub-department under the Radio and Television departments of YLE, respectively.

Sweden

In Sweden, 'Sveriges Radio/Utbildningsradion' (SR/UR) is one of the five subsidiaries of the parent company Sveriges Radio (together with Swedish Television; Swedish National Radio, Swedish Local Radio, and the licence-fee collecting company RIKAB).

SR/UR was created in 1978 by joining the Educational Programme Department of SR with the governmental committee TRU (for television and radio in education). Its task is to produce radio and television programmes for classroom use at all levels including kindergartens, for preschool children at home, for distance education students, for adult education, and for the general public.

Programme activities are regulated by law and specified in an agreement between the government and SR/UR which states that these activities "shall mainly concentrate on reinforcing, broadening and supplementing the educational inputs made by the public education system, and within voluntary popular education".[6]

Programmes are broadcast on both TV channels and on three of the four radio channels. Some changes have to be expected in the near future, but the existence of SR/UR, although heavily debated, will no longer be questioned, at least until 1998.

Norway

In Norway, too, public service broadcasting has increasingly come under pressure with the introduction of a nationwide commercial television channel in 1991. This led to a profound reorganisation within NRK. Its Education Department, formerly one of nine different departments, is now one of seven sections in a new bigger department named "Current Affairs Department", other sections in this new department being "Documentaries" and three different sections for children (0 – 6 years, 7 – 12 years, youth).

The Education Department will be more and more obliged to obtain money from outside the broadcasting organizations, e.g. from institutions at university level and from state authorities likely to sponsor programmes linked to distance-learning projects. It is also likely that this may include funding for schools programmes by the Ministry of Education.

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[6] Quoted from a booklet called: Facts about SR/UR. The Swedish Educational Broadcasting Company. Stockholm: 1990; p. 3.

Denmark

School broadcasting services in Denmark (DR) ceased to exist in 1989. The future of other educational programmes – now produced within a division called "Facta" – is not clear after the abolition of DR's Educational Department, formerly a cornerstone of adult education programmes in Scandinavian countries.[7]

Iceland

Iceland has started an Educational Broadcasting Service (EB) in 1989. School television programmes – in the starting phase mostly imported from the USA and the UK – are broadcast both for class-room use and local recording and disseminated by the National Centre for Educational Media. Adequate facilities for reception are still lacking in schools.[8]

Ireland

In Ireland (RTE), educational programmes are broadcast only for adults or the general audience, now under the umbrella of the Feature and Current Affairs section, following a reorganization of the TV programme division in 1990. School television is said to be in abeyance. It seems that RTE is a stronghold for Educational Radio.

The United Kingdom

In the United Kingdom, different educational television services with distinguishing features can still be watched on all four channels: on BBC1 and BBC2, on ITV and on Channel 4.

Some changes will occur in 1993, when the new Broadcasting Act will come into force. After a considerable amount of discussion and excitement about the original government plans concerning the future of educational broadcasting, it is now clear that the BBC's responsibility to provide educational broadcasting as part of its public service remit is re-confirmed, and that there will also remain an independent school television service besides BBC's school television, although no longer in the statutory responsibility of the future independent companies that will then be on the air as Channel 3. From January 1993, the new Independent Schools Television Service will be broadcast on Channel 4, funded by Channel 4 and commissioned by Channel 4.

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[7] Some 10 hours per year are still allocated to foreign language courses; documentary type of TV programmes are now being produced in a department named 'Facta".

[8] Cf. Jeppessen, K.; Moss, D.: Educational Television in Iceland. The utilisation of video resources in schools. Journal of Educational Television, 16/1990/1, pp. 13 ff.

Schools in Great Britain, therefore, will continue to have the benefit of two school broadcasting services. Until 1993, BBC Education will provide School Television and School Radio, and the Independent Television companies will complement this offer with ITV Schools which is broadcast over the Channel 4 network.

There are also special BBC school broadcasting services in the National Regions of Scotland, Wales, and Northern Ireland, supplementing the BBC school television output for the whole of the United Kingdom. The emphasis of programme output is on local geography and history, on the cultural heritage and the vernacular languages Gaelic or Welsh respectively.

Liaison and close cooperation with schools and colleges is assured by a network of BBC Education Officers, a unique institution to be dealt with later. They provide the BBC production departments and the Education Broadcasting Council for the UK as well as its related councils for Scotland, Wales and Northern Ireland with information on the educational needs of schools and colleges and on new developments relating to media provision.

Both BBC1 and BBC2 are also provided with programmes for continuing education by BBC Education's two divisions Continuing Education Television – recently retitled Continuing Education and Training – and Continuing Education Radio, which produce structured adult education series with clearly defined educational objectives for specific target audiences, usually combined with a range of follow-up opportunities such as print material, cassettes, flexi-study courses etc. Parts of the programmes aim at responding current interests or areas of national concern, e.g. health education, management training, multi-cultural issues and environment problems.

In addition, there is a wealth of adult education programming, produced by the BBC Open University Production Centre (BBC/OUPC) in Milton Keynes. These are mainly radio and TV courses provided as components to support the university level open learning scheme, but conceived both for distance education students as well as for adult learners in evening colleges and adults wanting to learn at home without being enrolled as students; they may optionally use all sorts of counselling services, too.

Educational Broadcasting Services (EBS) supports the five programme producing divisions. It is responsible for all links between programme makers and the educational community, for guiding the Education Officers, for providing potential users with information on programmes and supports material, for liaison with the Education Broadcasting Councils, and for contacts to the BBC's Broadcasting Research Department.

In 1986, BBC Education has been supplemented by BBC Educational Developments and Information. This department is charged with the production of a range of non-broadcast educational material, mostly audio and video cassette based packs, targeted at specific educational markets and often produced in cooperation with outside publishers. It also provides a comprehensive promotion and marketing service (publicity, exhibitions, advertising) for all BBC Education departments, support print for the BBC's general output, and runs a 24-hour information service (BBC Education Information). It is supplemented by the youngest children in the family, the department BBC Educational Publishing, responsible for all print production and marketing, BBC Books with its publishing programme to support continuing education series, and BBC Training Video providing video material for the training market and for management training, among others.

Another new institution is the Educational Broadcasting Services Trust (EBS Trust) which, independently of the BBC, manages and arranges for production know-how and resources, consultancy and advice to those who need it for providing industrial training, open-learning components, consultancy in Third World countries, etc.

Most of the 16 Independent Television (ITV) companies run educational departments that contribute to the nation-wide ITV programme output for schools, colleges, and adult or continuing education. These programmes are monitored and coordinated by the Independent Broadcasting Authority (IBA), which since December 1990 is replaced by the Independent Television Commission (ITC).

This body fulfils the functions of the former IBA until the beginning of 1993, when the new Broadcasting Act becomes effective. The ITC still runs an Educational Broadcasting Department with a group of specialized Education Officers working in the headquarters, but its (and their) future is uncertain since the ITC will discharge the old IBA's functions until the end of 1992.

Up to now, ITV stations have engaged Education Officers to liaise with schools, and they have built up a network of Community and Continuing Education Officers in the field to cooperate with adult education and community organizations. Much of their work is concerned with the programme support services and with encouraging the effective use of broadcasts, but they also play a part in assessing the effectiveness of the programmes and providing feedback for programme planners and producers.

The ITV companies have also been supported by their umbrella organization, the Independent Television Association (ITVA), that runs a Programme Planning Secretariat with an Education Office servicing the Education and Religious Sub-Committee and the ITV School Sub-Committee, among others.

Channel Four (C4) broadcasts all school TV output coordinated by the ITC as well as adult education courses and targeted programmes that are commissioned to outside production firms. In addition, it is committed to open learning schemes, such as the Open College, the Open College of the Arts, and the National Extension College. As to the future, the new Broadcasting Act has restated Channel 4's remit to provide educational programmes but has given it the assignment to provide a second school television service, using its traditional means of commissioning programmes. What is sensational in our connection is the fact, that for the first time in the history of UK broadcasting legislation a school television service is to be required by statute.

There has always been regular liaison between all three UK institutions to avoid overlap and with regard to special programme projects, e.g. in connection with the European Year of the Environment, or with a nation-wide AIDS Campaign.

The Netherlands

In the Netherlands, there are three educational broadcasting organizations: Nederlandse Onderwijs Televisie (NOT) for school television, the TELEAC Foundation and the Radio Volks Universiteit (RVU) for adult education programmes. They jointly operate the umbrella organisation EDUCOM which represents their interests in the boards and councils of the Netherlands Broadcasting Corporation (Nederlandse Omroepprogramma Stichting, NOS), the joint body of the national broadcasting organizations.

As 'broadcasting organizations without members', they have a special status within the truly unique Dutch broadcasting system. The airtime that is allocated to them and the financial means they receive from the licence fees are granted to them by the Media Act from 1987.

The Nederlandse Onderwijs Televisie (NOT) is a foundation whose only function is to produce school television programmes and supplementary print material. It receives airtime and financial resources (via licence fees) from the Ministry of Culture, although programme policy and production are independent of it.

The Radio Volks Universiteit (RVU; Educative Omroep), originally founded as a radio service of the Dutch Federation of Adult Education Institutes, started TV broadcasts in 1983. The focus is on permanent education for everyone, on stimulating active participation in the community, and on imparting basic knowledge to understand the world, although structured courses are not produced.

The TELEAC Foundation produces multi-media courses for adult education (12 – 15 per semester), comprising not only television and radio programmes but all sorts of other educational media and learning aids, computer-assisted correction of homework included. The offer ranges from Open School courses (for people with no education after primary school), foreign language courses (including introduction to Chinese) to vocational training courses and post-academic continuing education.

Belgium

In Belgium, the broadcasting situation is influenced by the fact that this country is one of the most cable-saturated countries in the world (87% in 1987). BRT's Education Department that broadcasts for the Flemish-speaking part of the country is highly active in adult education programming (sometimes in cooperation with the Dutch neighbours), although budget and airtime problems had to be faced after deregulation. However, the need to look for funding by outside sources has strengthened the position of the education department. Commissioning of programmes and some campaigns by ministries and large companies have given it excellent publicity.

Severe problems are also reported from RTBF's department for educational and youth programmes for the French-speaking community. In 1991, the production of school television programmes was ended; only repeats are being broadcast for the time being.

Germany

In the Federal Republic of Germany, all public service broadcasting stations – with the exception of ZDF – are affiliated to the ARD ('Arbeitsgemeinschaft der öffentlich-rechtlichen Rundfunkanstalten in der Bundesrepublik Deutschland'), which provides the nation-wide so-called 'Erstes Programm' (first programme), i.e. the programme of 'Deutsches Fernsehen' (German Television).[9]

The second German nation-wide television service ZDF ('Zweites Deutsches Fernsehen') has never produced school television and has gradually ceased to broadcast structured courses for specific target groups. Emphasis is now put on a broad spectrum of cultural series (so-called 'Offene Reihen') and socially relevant documentaries for the general audience, on topic-related magazine formats (e.g. for health issues, literature, education, science). There are still some slots for educational series broadcast in the afternoon as 'Studienprogramme' (study programmes), some of which are cooperative efforts with the education department of SWF (e.g. a series on 'Why Christians Believe', or 'Eleven Länder – one State: the Federal Republic').

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[9] After the unification of the two German states and the creation of five new Federal States, the broadcasting situation described here is likely to change.

The ARD members contributing to the first television programme have organized themselves to broadcast five so-called 'Dritte Programme' (third programmes; referring to the third comprehensive programme output, after the second German channel ZDF was set up). These are:

'Bayerisches Fernsehen' at Bayerischer Rundfunk (BR);
'Hessen 3' at Hessischer Rundfunk (HR);
'Westdeutsches Fernsehen' (WDF; also West 3) at Westdeutscher Rundfunk (WDR);
'Südwest 3' or 'S3', from Südwestfunk (SWF) in cooperation with Saarländischer Rundfunk (SR) and Süddeutscher Rundfunk (SDR);
'N3' (formerly 'Nordkette'), from Norddeutscher Rundfunk (NDR) in cooperation with Radio Bremen (RB) and Sender Freies Berlin (SFB).[10]

The 'Third Programmes' represent not only five different regional services but also five different and specific conceptions of educational and cultural programming. It is in the 'Third Programmes' that one finds educational series in a narrower sense, for instance school television services or courses for adult education requiring active participation and follow-up work with the aid of print material.

They were created to provide regional contrasts to the nation-wide first and second programme services, either for the broadcasting areas of the individual Federal States Bavaria (Bavarian Television), Hesse (Hessen 3), and North-Rhine Westphalia (West German Television, WDF or West 3), or for areas covering more than one State in the Northern and the Southwest region: Since all supra-regional broadcasting or educational activities have to be approved by the Länder governments, television services in the North – 'Nordkette', now N3 – and in the Southwest – 'Südwest 3', now S3 – are subject to treaties between the Federal States concerned (as is the nation-wide programme of the ZDF in Mainz).

There is close cooperation between the five educational television departments which is channelled by five coordinators. An elaborate programme exchange scheme has been developed, and most of the educational series are brought into a common

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[10] N3 Schools Television used to be a cooperative effort of NDR, RB and SFB but has been abolished by NDR

'Programme Pool'. There are regular contacts among special editors to discuss co-production or co-financing arrangements.

While the data for our survey were being collected, N 3 stopped broadcasting school television programmes; NDR and RB withdrew from the state treaty to take effect by August 1989. In Berlin, however, there is still a school television service offered by SFB. It can be assumed that there will be a need for school television in the new Eastern German Länder in view of the enormous problems faced in restructuring and reforming the formal educational system.

Austria

In Austria, educational programmes for schools are produced according to a contract between ORF and the Ministry of Education, Arts and Sports (signed in December 1985), the latter provides money for the production of about 20 school TV programmes for each school year. The ORF commissions the productions to outside firms and guarantees the transmission of six half-hour programmes per week. Subjects, educational objectives and principles of presentation are worked out by the Ministry in coordination with the ORF and must comply with educational legislation and the official curriculum. A representative of the Ministry participates in the preparation of the scripts, supervises the productions, and has to give the final approval before transmission.

Switzerland

All three Swiss television services DRS, TSR, and TSI run educational departments providing educational broadcasts for their German/Romanche-, French- and Italian-speaking audiences respectively. For DRS (Television) they are produced in the division "Familie und Fortbildung" (Family and Continuing Education), with TSR they come from a subdivision of the department "Magazines", TSI runs a department "Programmi Telescuola" as part of the division for cultural programmes.

Between the German-speaking Swiss station SRG/DRS and the educational authorities of the German-speaking areas in Switzerland (EDK Regional Conferences) a detailed agreement has been concluded in the area of school television. Since 1987, cooperation with adult education institutions and organizations has been institutionalized, too, by the conclusion of a statute.

For the French-speaking part of the country, there is a close cooperation of TSR with the public education departments of the French-speaking Swiss cantons.

Matters of educational broadcasting have been dealt with by a special 'Commission Romande de Radio-TV Educative' (Educational Radio and Television Commission) that was also competent for the Tessin area.

Similarly, an ad-hoc commission of the cantonal educational authorities in Italian-speaking Switzerland collaborates in choosing the themes of the 4 – 5 programmes produced by the TSI 'Telescuola'. Other programmes are adapted from productions of other departments or from bought material. It is feared, however, that there is no future for the 'Telescuola' after summer 1993.

France

In France, the production of educational programmes for adults and for adolescent learners at home still falls into the domain of FR3 Lorraine Champagne Ardenne in Nancy, with its newly created programming unit "Jeunesse – Europe – Formation" (JEF). Its programmes are transmitted regionally, i.e. over the FR3 channels.
A spectacular increase of airtime by 850% was reported in 1990.

Also transmitted over the regional FR3 channels are all programmes for schools which are produced by the Centre National de Documentation Pédagogique (CNDP), a national centre associated to the French Ministry of Education.[11]

The CNDP is charged with many other tasks in addition to, and beyond programme production, such as providing information, publishing magazines, producing audio-visual materials for all educational areas, and promoting the use of new forms of technology in education. Its main stronghold is probably that it serves, and is assisted by, a network of 116 regional, departmental and local centres for "documentation pédagogique'. One could even say that from all the educational broadcasting units mentioned here, CNDP is the only one that would exist even if it had to cease producing programmes for broadcasting.

Antenne 2 (A2), now under the same General Directorate as FR3, provides programmes of a more educative and/or informative nature for a general audience; they are produced by three different units for documentary programmes and magazines (Culture and Sociology; Discovery of the World; Religion, Cinema, Theatre), as well as by the section for Youth Programmes.

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[11] Since 1990, the production and publication activities are guided by an advisory body called "Comité National de l'Edition", with representatives of the Ministry of Education, of the CNDP and outside experts.

Iberian countries

In Spain (TVE), too, educational programmes are broadcast only for adults or the general audience, not for schools. Airtime for adult education programmes have increased since and amount up to three hours on some weekdays. In addition, summer courses made by Spanish universities were planned for 1991 to be broadcast on the second channel of TVE. In spite of internal organizational changes educational programmes have been publicly endorsed by the Director General as one of TVE's objectives.

Educational initiatives are expected from the growing number of regional autonomous public service stations which partly broadcast in the vernacular languages, e.g. in Catalonia (TV3), Basque (ETB), Galicia (TVG), Valencia (Canal 9), Andalusia (Canal Sur), and Madrid (Telemadrid). Their programme output targeted at children and young people is respectable given the shortcomings in terms of financial means and experience.[12]

Portugal (RTP) reports on "occasional programmes on social problems . . ., although not on a regular basis" and refers to the Instituto de Comunicação Multimedia being the responsibility of the Universidade Aberta, an Open University model. Transmission of educational broadcast components at off-peak hours started in 1990.

Italy

The only producer of educational broadcasts is RAI, which is a joint-stock company of national interest, publicly owned and controlled by the state. Responsible for educational programmes is the Dipartimento Scuola Educazione (DSE) which has been created by a legal act in connection with a reform of RAI in 1975. To a large extent, costs for educational productions are covered by government subsidies.

It is facing a reconsideration of its organizational structure and editorial policy.

Greece

As in Italy, the only provider of educational programming is ERT, a non-profit broadcasting organization owned and supervised by the state. Educational broadcasts are produced in close cooperation with the relevant departments of the

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[12] Cf. Blanca Alvarez Mantilla's account on the situation of children's television in TelevIZIon, 4/1991/2, pp. 18 – 20.

National Ministry of Education, which in Greece is an Educational Television Department, which subsidizes roughly one third of the costs for educational production.

Malta

In Malta, a Media Education Centre was set up in 1988 which succeeded the Schools Broadcasting Unit of TV Malta. Programmes for schools are produced as video material to be distributed through a national educational video library, but are also broadcast regularly by the national station TVM. Non-formal educational programmes are either imported and translated into Maltese or produced locally, dealing with cultural and political issues of the island. Foreign language courses are also broadcast.

Israel

In Israel, IETV, since its foundation in 1966, has been in a position to use the only national channel entirely for educational output from the morning to 5.30 p.m., sharing it with Israel General Television, which broadcasts non-educational programmes from then to midnight. The programme department consists of units for preschool and school programmes, for general programmes and current affairs programmes.

With the creation of the second (commercial) television channel in Israel, IETV has been guaranteed 15% of this channel's airtime (in addition to its present airtime), and it will receive one special channel on cable TV in every cable region. This increase in airtime, however, will result in budget problems and the need to look for new funding sources.

IETV, previously directly supervised by the Ministry for Education and Culture, has now been changed from a government-run to a government-owned, but independent station. Plans are under way to establish a full channel for educational programmes.

The school television services

After this attempt to provide a picture of the general background of school television within the framework of educational broadcasting, the following summarizes the information gathered so far on the various types of school television services in Europe.

As of autumn 1989, single nation-wide or country-wide school television services existed in the following countries:[13]

Austria (ORF: Dept. Wissenschaft und Bildung);
France (Centre National de Documentation Pédagogique, CNDP);
Greece (ERT: Educational Television Department);
Israel (Israel Educational Television, IETV);
Italy (RAI: Dipartimento Scuola Educazione);
Netherlands (Nederlandse Onderwijs Televisie, NOT);
Norway (NRK: Educational Department);
Sweden (Sveriges Utbildningsradion, SR/UR).

Three of these organizations (NOT, IETV, SR/UR) are exclusively created to transmit educational broadcasts to the educational system, i.e. programmes for schools in our context.

Schools in Great Britain are being served by the two different and equally distinguished school television systems of the BBC (School Television and Radio) and – at least until the end of 1992 – of ITV Schools, the school television service made up by the Independent TV companies and coordinated by the Independent Television Commission, the former IBA.

There are also BBC school broadcasting services for the linguistic minorities in the National Regions of Scotland, Wales, and Northern Ireland, supplementing the BBC school television output for the whole of the United Kingdom.

As already mentioned, there are some multilingual countries where more than one educational television service is broadcast. This applies also to school television: in Belgium, BRTN Instructieve Omroep caters for the Flemish-speaking schools, and RTBF Service Education-Jeunesse Télévision Scolaire for schools in the French-speaking part of the country. In Switzerland, educational television programmes are broadcast in the three different language areas by DRS, TSR, and TSI, the scope and nature of programmes directed to schools, however, varies considerably.

Based on a detailed agreement with the educational authorities of the German-speaking areas in Switzerland (EDK Regional Conferences), DRS provides a comprehensive, curriculum-oriented school television service for the German-speaking part of the country. The programme offer is complemented and supported by an equally active school radio service.

In French-speaking Switzerland, school television ended in 1969. Nine years later, a department was created under the heading 'educational television' that produced programmes also directed at schools. However, after a phase of experimentation, it has been decided not to complement or illustrate subjects taught in schools and to concentrate on subjects such as current affairs or media education.[14]

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[13] Names of the organizations and/or the departments responsible for school television are given in brackets.

Until 1989, YLE ran a Swedish Language Educational Department, serving adults as well as youngsters and schoolchildren of the Swedish-speaking language minority in Finland both on radio and on telvision. The objectives of its school television department were to strengthen the identity of Swedish-speaking children in Finland, to support schools with material they would not otherwise be able to get, and to introduce new methods and pedagogic ideas. This department was abolished in June 1989 and has now been replaced by a radio sub-department and television sub-department under the respective divisions of YLE.

In Yugoslavia, each of the 8 broadcasting organizations joined together in Jugoslovenska Radiotelevizija (JRT) used to serve the individual republics within the federation, a situation which certainly is now outdated by the civil war.

As described above, the situation in the Federal Republic of Germany is more complicated due to the fact that the Federal Constitution demands that any educational or cultural issue (including broadcasting matters) should lie exclusively in the domain of the Länder. School television services, therefore, would in principle have to be restricted to the geographical regions of the individual Federal States.

Thus Bayerischer Rundfunk (BR) broadcasts its school television programme in Bavaria, Westdeutscher Rundfunk (WDR) in North Rhine-Westphalia, and Hessischer Rundfunk (HR) in Hesse.

The school television service of HR is conceived primarily as a contribution to the vocational school system (which enters the category of tertiary education in Germany), although it is used in many secondary schools as well.

Since, however, all supra-regional broadcasting or educational activities have to be approved of by the Länder governments, school television services in the North and in the Southwest are subject to treaties between the Federal States concerned.

The school television service of "S3" (formerly "Südwest 3') is broadcast for schools in the Federal States of Saarland, Rhineland-Palatinate and Baden-Württemberg. The Südwestfunk (SWF) is in charge of the organization, and the Saarländischer Rundfunk (SR) contributed programmes on geography and civics until the end of 1987. Süddeutscher Rundfunk (SDR) does not produce school television but concentrates, instead, on radio programmes for schools.

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[14] Cf. Paulette Magnenat's article in this volume.

In North Germany, school television used to be broadcast via the so-called "Northern Chain" or " N 3", a joint effort of Norddeutscher Rundfunk (NDR) and Radio Bremen (RB) for the transmission areas of Bremen, Hamburg, Lower Saxony, Schleswig-Holstein, and – since 1987 – of Sender Freies Berlin (SFB) in West Berlin, which provided 24% of the programme output of "N3".

There is close cooperation among the ARD school television departments, including an elaborate programme exchange scheme, regular programme fairs (twice a year, with participation of the neighbouring German-speaking countries), and many co-produced or co-financed series.

While the data for our survey were being collected, NDR cancelled the state treaty to take effect in August 1989; that is, N 3 discontinued broadcasting school television programmes in the North German region and offers what is called "schulgeeignete Programme" (programmes suitable for schools). The SFB, however, continues to broadcast television for schools in Berlin.

Likewise, the school television services in Denmark (DR) and Portugal (ITE) have ceased to exist. At present, there is no school television in Spain, either, except for the region of Catalonia. School television in Ireland is said to be "in abeyance" (RTE).

In France, educational broadcasting as a whole seemed to be in the process of change, but regular school television programmes are being produced by CNDP as before and broadcast over FR3.

Up to now, no information has been received on the present status of school television in Turkey and Cyprus.

Internal structures and neighbourhoods

We looked at the organizational framework in which school television departments are placed, hoping that it might be possible to draw conclusions as to the role and importance of school television departments within their organizations.

It could have been assumed, too, that the daily encounters school television editors have with colleagues working in different areas are likely to influence their ways of thinking and of receiving and evaluating information, their quality criteria, and the way the target audience of schoolchildren is conceived. Again, there is enough diversity, but no pattern as to the organisational set-up.

Most of European broadcasting organizations run educational departments that produce both school television programmes and programmes that contribute, in one way or another, to adult education and respond to the adult learners' needs.

This is the case with most of the educational departments of the German ARD affiliates, BBC, BRT, ERT, some ITV stations in the UK, NRK, ORF, RTBF, SRG/DRS, SR/UR, YLE.

Some of these departments broadcast both television and radio programmes for schools and adult learners, i.e. BBC, BRT, RAI, SR/UR, the former Swedish Programme section of YLE.

Others provide – on a regular basis – television programmes and support material for schools or for preschool education only, e.g. CNDP, NOT, and IETV, which does not exclude an engagement in educational programmes for specific audiences.

The Norwegian NRK had run an educational department managing both radio and TV programme output until 1986, then the two divisions were separated and put under the respective directorates. There is still a joint publishing division and distribution office for print material, and there is a close cooperation in the production of multi-media courses, for instance in the foreign language teaching area.

In some cases, both departments or sections share the expertise of, say, the editors for foreign language courses or science programmes (e.g. ARD/BR, SR/UR, YLE).

Educational departments may also be situated "under the same roof", as it were, with editorial departments producing programmes for children and adolescents (and other family members). This is the case in most of the German-speaking organizations, where the heading "Family Programme" or "Afternoon Programme" is often applied, e.g.: ARD/BR (Dept. "Familie"), ARD/HR (Dept. "Bildung und Erziehung"), ARD/SFB (Dept. "Bildungs- und Familienprogramm"), ARD/SWF (Dept. "Ausbildungs- und Familienprogramm"), and in Switzerland SRG/DRS (Dept. "Familie und Bildung").

The ralationship with the educational authorities: Types of relationship

Among the broadcasting organizations mentioned, there are considerable differences as far as the legal conditions are concerned. Whereas most European broadcasting organisations have adhered to the principles of the public service idea (e.g. BBC, BRT, RTBF, all German and Scandinavian stations) and educational departments receive the main part of their revenues through licence fees, the services in Greece (ERT), Italy (RAI) and Israel (IETV) are controlled and – at least partly – paid for by the governments.

Tentatively, it is possible to identify the following types of relationship between educational broadcasting units and educational authorities:

Type A:

School broadcasts are produced by a non-broadcast institution that is attached or responsible to the authorities; the transmission is subject to an agreement with an outside broadcast organization. (Examples: CNDP, formerly ITE)

Type B:

The broadcasting organization is under governmental control; the use of airtime for educational broadcasting is a matter of agreement between the governmental bodies or ministries concerned. (Examples: ERT, RAI, IETV, JRT affiliates)

Type C:

The division-of-labour model: School broadcasts are produced by the broadcasting organization; they are entirely or partially funded by the educational authorities, or the latter subsidize or fund the production of supplementary material. (Examples: ARD/HR, ARD/S3, ORF, SRG/DRS).

Type D:

Cooperation is channelled through a joint committee or council; usually the representatives of the educational authority have an advisory function but no control function, or their possibility to intervene is very strictly defined. (Examples: ARD/WDR, BBC, ITC, NRK, SR/UR, YLE).

Type E:

There is no ministry influence whatsoever, which does not rule out cooperation in connection with certain projects, or contacts with governmental institutions, publicly funded associations, etc. (Examples: ARD/BR, NOT, RTBF, TVE, formerly DR).

Occasional contacts with the authorities are reported in many ways, and they may have different forms. Here are some examples:

A2 reports cooperation with the Ministry of Education in terms of co-productions of cultural documentaries and of some music and theatre programmes on TV.

NOT mentions occasional cooperation with the Ministry of Education, the Ministry of Culture and school authorities on the production level.

With the ITC, there are annual meetings with the Department of Education and Science; various other meetings of working groups on the development of new strands of school TV programmes, e.g. in connection with curriculum reforms. Some direct influence occurs when funding for co-productions is offered from the ministry.

Some public service broadcasting organizations, for which – as a rule – independence from governmental control is a point of broadcast legislation, have established closer links with the state, at least in connection with their services directed at schools: School broadcasts are produced by the broadcasting organization; they are entirely or partially funded by the educational authorities, or the latter subsidize or fund the production of supplementary material. The extent of cooperation with the programme-producing broadcasting organization is regulated in an agreement or even by law, which in some cases means ensuring editorial independence. This is what has been described as the "division-of-labour" model which we find, for instance, with ARD/HR, ARD/S3, ORF, or SRG/DRS.

In Austria, according to a contract between ORF and the Ministry of Education, Arts and Sports (signed in December 1985), the latter provides money for the production of about 20 school TV programmes for each school year. The ORF commissions outside firms with the productions and guarantees the transmission of six half-hour programmes per week. Subjects, educational objectives and principles of presentation are worked out by the Ministry in coordination with the ORF and must comply with educational legislation and the official curriculum. A representative of the Ministry participates in the preparation of the scripts, supervises the productions, and has to give the final approval before transmission.

In Belgium, the production of radio or TV programmes and print material for schools has been subsidized by the Ministry of Education, although both BRT and RTBF have remained fully responsible for the contents.

In Finland there also used to be state subsidies for school television output. Now, according to a new agreement between YLE and the Ministry of Education, each partner is to take over 50% of the new adult education programmes for both the "open university" and the professional training area.

A detailed agreement has also been concluded between the German-speaking Swiss station SRG/DRS and the educational authorities of the German-speaking areas in Switzerland (EDK Regional Conferences) in the area of school television. This cooperation is arranged in the field of programme planning, production and programme evaluation as well as with respect to distribution and marketing by setting up specific Project Groups that plan and carry out their own productions and purchases in accordance with the funds and production resources approved, and in which SRG/DRS and the EDK Regional Conferences are equally represented.

In French-speaking Switzerland, school television was succeeded by educational television, which has now existed in its present form for 13 years. It has constantly adapted its approach to meet the developments undergone by both school and television. Because of the disparities between the different cantons, it was decided not to complement or illustrate subjects taught in schools and to deal with subjects such as current affairs or media education instead. It would have been difficult to find common ground acceptable to schools in Geneva, Vaud, Valais, Fribourg, the Jura or the Bernese Oberland.

Liaison with the educational community: Advisory boards

Other important and distinct features of educational broadcasting units are the Advisory Boards. They are, as it were, the points of contact where the relationships between broadcasting organizations and the educational community, including the ministries of education, become evident.

Quite often their roles and tasks, their composition and their functions are explicitly laid down in contracts or agreements. This seems to be particularly important in cases where links to the educational authorities have to be carefully defined in order to help reject possible doubts about any interference with the autonomy and independence of public service broadcasting where it is laid down by law.

Different types of boards

Again, in an attempt to structure the field, the following types were identified:

Type A:

Organizations directly under the control of educational ministries or belonging to state institutions are obviously not guided or supervised by advisory bodies; however, special ad hoc committees or subject related expert groups are occasionally installed (e.g. CNDP, ERT, IETV, RAI).

Type B:

There are permanently working advisory boards or committees. These can be either

a) advisory boards for the whole of the educational programme output (e.g. with NOT, NRK, RVU, TELEAC, YLE); or
b) special subgroups of the advisory board that are concerned with school television or adult education programmes separately (BBC, ITV), or
c) advisory committees or boards exclusively for the school television department or for some types of continuing education projects such as Telekolleg (e.g. for ARD/BR, ARD/SFB, ARD/S3, ARD/WDR, BRT, SRG/DRS, SSR/RTSR).

Type C:

There are groups of subject-related experts, sometimes inaugurated by an advisory body, usually formed by practising teachers and television editors, which in most cases work jointly in a team, at least in the planning stage (e.g. ARD/S3, ORF, RTE, SRG/DRS, YLE/SP).

Advisory boards for school television

In some cases, more detailed information has been provided on how these advisory bodies for school television have been organized:

The BBC is guided by the Education Broadcasting Councils (EBC) which exist separately for the United Kingdom as a whole as well as for the National Regions, i.e. in Scotland, Wales, and Northern Ireland. These Councils are "responsible for the policy which governs programmes designed for use in schools and colleges", and they also "advise the BBC on educational programming for adults."[15]

The Councils are supported by several Programme Committees, each of which specializes in a particular educational sector, i.e. primary, secondary or adult education. They are described as "teams of dedicated educationalists and representatives from the world of industry, commerce and voluntary organisations". Obviously they fulfil their function best in a pre-production state, "providing detailed input on all the programming planned, and ensuring that there is a constant link between the policies of the broadcaster and the needs of the users".[13]

Similarly, the Education Advisory Council (EAC) for the Independent Broadcasting system, in which the educational authorities are also represented, is described as "central source of advice on the education policy". It is divided into three sections, one each for schools, adult education and radio.

For SR/UR , there are advisory bodies for each programme section. According to an agreement between SR/UR and the State, the company has to discuss the needs of educational programmes with the users (e.g. adult education organizations) before making decisions on programme contents and production priorities.

For NRK, there is no specific advisory board for educational programmes; all programme output is discussed by the NRK Broadcasting Council ("Kringskastingsradet"). Cooperation is active, however, with various departments and professional advisory councils of the Ministry for Church and Education.

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[15] Cf. "Educational Broadcasting – at its Best", BBC Education Leaflet (n.d.); p. 10.

In Finland, an Educational Programmes Committee ("Utbildningsprogrammkommissionen") is formed by YLE, the educational authorities and other relevant organizations, e.g. the Association for General Education; the Committee of Adult Education; or regional Centres of Educational Media. This Committee deals with the use of funds and matters of programme planning; of its 13 members, seven are appointed by the Ministry of Education.

For BRT, there is an advisory committee for school programmes (Raadgevende Commissie van de Schooluitzendingen) in which the educational authorities are represented. In addition, there are regular contacts with the Ministry of Education (Dienst Media en Informatietechnologieen), which subsidizes the production of radio or TV programmes and print material, although BRT is fully responsible for the contents of the media.

Formerly, CNDP was directly subordinated to the School Directorate of the Ministry of National Education. Cooperation was organized through the "Comité d'Orientation des Programmes" (COP) which consisted of the representatives of the Ministry of Education, the CNDP and the "Inspection Générale". Since 1990, the production and publication activities are guided by an advisory body called "Comité National de l'Edition", in which the National Ministry of Education, the CNDP and outside experts are represented.

In Austria, an Advisory Committee ("Programmbeirat") includes representatives of ORF, the Ministry of Education, teachers of various school levels and subject experts. According to a contract between ORF and the Ministry of Education, Arts and Sports (signed in December 1985), the latter provides between 3 and 6 million Austrian shillings for the production of about 20 school TV programmes for each school year. The ORF commissions outside firms with the productions and guarantees the transmission of six half-hour programmes per week. Subjects, educational objectives and principles of presentation are worked out by the Ministry in coordination with the ORF and must comply with educational legislation and the official curriculum. A representative of the Ministry participates in the preparation of scripts, supervises the production, and has to grant final approval before transmission.

For the German Third Programme "S3", cooperation between the Ministries of Education in Baden-Württemberg, Rhineland-Palatinate and Saarland, and the three Southwest German broadcasting stations is laid down in an administrative agreement ("Verwaltungsvereinbarung Schulfernsehen") signed in 1970.

This agreement describes the tasks and functions of several committees in which cooperation is organized:

- a Contact Commission, which deals with programme priorities, financing, and conceptional questions on the highest level (ministers and general managers or their representatives);
- a "Gemischte Kommission" (joint commission), in which the heads of responsible departments and subject experts from both sides as well as research experts work out recommendations for productions based on curriculum needs, takes precautions for supplementary print material, advance information and promotion measurements, and commissions evaluation research where necessary;
- the "Verwaltungsausschuß" (administrative committee), in which the budget experts of all partners settle financial commitments;
- "zentrale Arbeitsgruppen" (working groups), which are curriculum-oriented and work out instructional objectives for each series, planning and production schedules, content portions for broadcasts and print material, and approve of the productions or recommend revisions if necessary.

According to the agreement, the ministries finance print material, for preparing and instructing the teachers and for evaluation studies. They also contribute to the expenses for the "Geschäftsstelle Schulfernsehen", i.e. the coordinating and administrative office for S3 at Südwestfunk in Baden-Baden.

The detailed agreement between DRS, the German-speaking Swiss station, and the Regional Conference of Education directors of German-speaking Switzerland (EDK) concerning the collaboration in school television has already been mentioned. Implementation of this agreement is ensured by

- a continuously working project group and for the individual projects the specially named working group consisting of three representatives each of the Regional Conferences and of DRS Television;
- the working groups, consisting each of an author, an editor, a director as well as a subject and level representative from the Regional Conferences, all members being selected by the project groups.[16]

For ARD/WDR, the Broadcasting Law prescribes a Schools Broadcasting Committee ("Schulrundfunkausschuß"), which is, however, only responsible for broadcasts leading to an officially recognized certificate, e.g. Telekolleg, and not for regularly broadcast school programmes.

The education officer

An institution that is presumably unique in Europe is the job of an Education Officer (EO) in the UK. These highly professional liaison specialists (and often

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[16] A detailed description of the agreement is given by Verena Doelker-Tobler in her contribution to this volume, pp. 83 – 87.

Jack-of-all-trades) have been attached to both the BBC and the ITV system of educational broadcasting, originally mainly for the school broadcasting sector.

As a prospectus simply states, the BBC Education Officers "combine educational expertise and experience with knowledge of the BBC's output. Through their visits to schools, colleges, other educational institutions and user groups within the community, they provide valuable information about national needs which they then feed back to the BBC production departments", thus maintaining "that all-important link between programme-makers and user".[17]

But a closer look at some of the main categories of their activities described in an earlier internal paper[18] reveals to what extent their work is highly relevant to providing information that could hardly have been furnished otherwise, e.g. by a research department:

"Helping in the evolution of educational broadcasting policy" by:

- analysing trends and developments;
- identifying areas where educational broadcasting would be most effective, significant and beneficial; and, in so doing, help establish broadcast priorities.

Co-operating closely with production staff in the design of broadcast projects through:

- pre-programme fieldwork research;
- consultative meeting with teachers, advisers, school inspectors etc.;
- piloting and pre-testing material;
- presenting ideas at "offers" meetings and seeing these through to fruition;
- post-programme feedback and evaluation;
- writing support material.

Keeping BBC Education abreast of developments in the educational broadcasting field by ensuring that the output is finely tuned both to audience needs and to rapidly changing educational environments by:

- informing producers and educational broadcasting management about changes and advising on appropriate broadcast responses;
- helping to tailor the broadcast provision to user needs;

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[17] Cf. "Educational Broadcasting – at its Best", BBC Education Leaflet (n.d.). Later in this volume, Julie Cogill describes the tasks and functions of the EOs working for the BBC (pp. 201 – 207); John Russell gives an insight into the different challenges for the EOs in the Region of Scotland (pp. 208 – 215).

[18] Taken from an unpublished list issued by the Educational Broadcasting Services department of BBC Education.

- helping to establish short and long-term priorities;
- providing an overview of needs in a way which individual productions departments cannot;
- in the case of Continuing Education audiences (which is often diffuse and scattered), constantly exploring new ways of reaching actual and potential audiences . . ."

(The paper continues by listing activities relating to programme promotion, fund raising, development of support material, etc.)

Some 40 Education Officers have been employed by ITV stations or by the former IBA in various capacities, full and part-time, to liaise with schools and adult community organizations.[19] Much of their work is concerned with the programme support services and in encouraging the effective use of broadcasts, but they also play a part in assessing the effectiveness of the programmes.

Each year one or two projects on particular subjects are arranged to allow a larger number of company Education Officers to participate in a coordinated scheme of evaluative work.

The ITC has also developed a network of Continuing and Community Education Officers (CCEOs) – one in each ITV area – to promote and support networked adult education series on the C4 and ITV channels and locally transmitted "social purpose" programmes. These CCEOs liaise closely with educators, statutory and voluntary agencies and key contributors to the welfare of the community in their particular region.

For adult and community education, feedback to the Education Officers often comes "through viewers' " requests for the support materials or contacts made with organizations linked to the programme topic. Such external organizations may also wish to mount their own evaluation surveys to illuminate, justify or make more effective their part in the broadcasting and support partnership".[20]

RTE in Ireland employs an Education Officer, too. In Sweden staff members of the regional representations of SR/UR, mainly responsible for educational local radio productions, have similar functions; they are also in charge of keeping contacts with the users of the national network programmes and of providing information and feedback.

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[19] A thorough account of the historical development of the role of EOs in Independent Companies is given by David Lee in this volume (cf. pp. 167 – 195).

[20] From an IBA paper presented at the Copenhagen meeting in 1983

Research connections and research activities of educational broadcasting units

In our survey, we asked what kind of relationships exist between educational broadcasting departments and research units or institutions. We also wanted to know, who does research work for educational broadcasting.[21]

From the material received so far the following types were identified:

Type A: The educational broadcasting organizations:

Educational broadcasting is their only objective; they specialize in educational programme and media production, and they have their own research departments (e.g. IETV, SR/UR, NOT, TELEAC; outside Europe TVO).

Type B: The research specialist colleague

The educational broadcasting department has one or more staff members who have been specializing in doing research work themselves or who are experienced enough to be charged with commissioning outside institutions to carry out research (e.g YLE).

Type C: The audience research department connection

The broadcasting organization runs one or more educational broadcasting units as well as an audience research department. The latter provides audience ratings for educational programmes, and/or it conducts studies on behalf of educational broadcasting unit(s). These are often listed as "special projects" and relate to special programme projects (acceptance, effectiveness, use of support facilities etc.), special audiences (needs, knowledge, attitudes, etc.). This type of research connection can be said to be predominant in Western European broadcasting stations (e.g. BBC, BRT, DR, ERT, ITV, JRT, NRK, ORF, RAI, RTBF, SRG/DRS, YLE, ZDF).

Type D: Outside research contacts:

Broadcasting organizations have educational departments but no research units that are able to carry out "special" research; outside organizations are commissioned to do research in connection with educational broadcasting, if it exists at all (e.g. ARD-affiliated stations).

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[21] A paper presented by the author on "Educational Television Services and Research Activities in the late Eighties" has been published in: Chava E. Tidhar: ETV Broadcasting Research in the Nineties. Readings from the Tel Aviv Research Seminar 1990. Tel Aviv: IETV 1991; pp. 39 – 59.

Type E: Non-broadcasting institutions:

A non-broadcasting organization is charged with the production of educational material, but not with its broadcast dissemination; there might be in-house research departments (e.g. CNDP, MEC/Malta; ITE/Portugal; outside Europe AIT/USA)

Type F: Commercial interest organizations:

Broadcasting organizations that have not (or not yet) any elaborate educational programme output but a definite interest in research, at least in audience research, which in its most simple form is even of vital importance to them (i.e. all commercial stations, especially the newly emerging ones).

Within the framework of active membership in the EBU Working Party for Educational Programmes (i.e. Western Europe and Israel), there are four institutions that can be grouped as educational broadcasting research departments: they are attached to SR/UR in Sweden, to the two Dutch organizations NOT (for school television) and TELEAC (for adult education by television), and to Israel Educational Television. As a rule, research was and is part of the conception for these highly specialized institutions since they were founded.

In our survey, the majority of educational television departments stated that they can avail themselves of research data from the regular audience ratings (e.g. ARD/BR, ARD/S3, ARD/SFB, ARD/WDR, BBC, DR, ERT, ITV. RAI, NOT, NRK, SR/UR, SRG/DRS)

Cooperation with outside institutions

Working contacts with outside organizations are too manifold to be mentioned in this context. Even to list a selection of them would not make sense, since the most interesting forms of cooperation are built up in connection with special projects. Our survey has furnished enough information to include a wealth of case studies in the forthcoming book. Especially in the fields of information technology, management training, technical and vocational education, patterns of cooperation have emerged that lead to the future.

Resources and costs

Airtime allocation

As an indicator for stability, it was asked whether, within the last two years, the airtime allocated to educational television programmes had been a) considerably expanded b) considerably reduced or c) had remained more or less stable.

The question was repeated in the questionnaire for schools and colleges (i.e. for the formal educational system) as well as in the one for adult education programmes.

School Television:

Of all the responses to this question (N = 21), only four reported a decrease of airtime for broadcasts to schools: ERT, ARD/HR, ARD/BR, ARD/N3 (by approx. 10%) and DR (by approx. 40% in the year before it was abolished). Of all the others, two reported even an expansion of airtime allocation: RAI by 100%; ITV stating "for colleges" (without giving the change rate)

Adult Education:

Out of 24 respondents, 11 reported stable airtime conditions. Airtime for educational programmes was reduced only at A2 (– 25%) and ARD/NDR (– 10%); C4 expected a reduction of approx. 15% for 1989/90. More airtime was allocated to the educational departments at RTBF (80%), DR (40%), IETV (50%), RVU (50%), RTE (10%), BBC/CE (10%), SR/UR (4%), ARD/S3 (20%), ARD/BR and ITV (no percentage figures).

There was some positive news in this connection after the survey was done:

In 1989, after a wide-spread public debate on the status of ETV in France, Fr3 was allocated 400 additional hours of airtime, which was said to be an 850% increase in the annual volume of educational programmes broadcast in France.

The BBC reported an increase of 25% in airtime for the Schools Department for 1990. NRK and TVE also reported increase of airtime.

Budget stability

A similar question was asked concerning the annual budget for school television or for adult education productions in relation to the average budget for the years 1980 – 1986.
(Questions relating to financing, funding, or financial resources were obviously considered to be most delicate. In many cases, replies were not given at all, incomplete or explicitly refused.)

School Television:

From all the responses to the school TV questionnaire (N = 19), 10 reported that their budget had remained more or less stable. The following six showed negative tendencies: DR (40% decrease), CNDP (15%), ARD/N3 (10%), SR/UR (3%),

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ARD/BR and ARD/HR (no specification). An increase in financial means is reported by SRG/RTSR (60%), BBC/Schools (25%), and BRT (20%).

Adult Education:

Of all those replying to the relevant questions (N = 20), 9 reported stable financial conditions; reduction of means were reported by A2 (−25%) and ARD/BR; an increase of budget was reported by DR (+ 40%), BRT (30%), IETV (20%), C4 (18%), ARD/S3 (10%), RTE (10%), SR/UR (4%), YLE (3%), and RTBF (no percentage)

Is school television really that expensive?

An enlightening answer to this question was given by Kees Schippers, Programme Director of NOT, at the Basle Seminar 1989:

"In the Netherlands, . . . the total broadcasting budget, stemming from licence fees and advertising, amounts to 1,000 million HFL.

From this sum, school television receives 15 million HFL, which is 1.5 % of the total, and we produce some 350 programmes a year with it. The schools pay 3 million HFL in annual television fees, so it costs the Government 12 million HFL a year, which equals about 5 million US$.

> The education budget in the Netherlands is 30,000 million HFL.
> There are 14,000 schools in the country, some 3,000 of them being secondary schools.

The running costs of an average secondary school with about 70 teachers is approximately 7.5 million HFL per year.

Thus, the cost of school television in the Netherlands, with some 350 programmes a year and 60 regular and 30 freelance employees, is not more than the money required to run two secondary schools!"[22]

Programme promotion and support activities[23]

Programme support activities, usually managed by the organization's press or information department, are in some cases operated by the individual subject editors themselves (e.g. A2, ARD/BR, ARD/WDR, ERT, RVU, ZDF) or by specialist colleagues within the department (ARD/BR, ARD/N3, C4, RTE). In Britain, this would also be the task of the Education Officers. In some cases, there are special units or subdivisions in charge of these activities (BBC, ITV, IETV, NRK, RAI, SR/UR, TELEAC, YLE.)

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[22] Published by the EBU (Seminar report 1989) and in this volume pp. 55 – 64.

[23] Listings in the following paragraphs are taken from survey responses and relate to 1989/1990.

Advance information

The most elementary and common type of print material supporting schools programmes is the advance information on forthcoming programme output sent out to schools. For school television services, it is certainly also the most important measure to ensure programme awareness among teachers, to encourage proper in-class utilization, and to influence the image school television has in public.

In terms of frequency, advance information for teachers is published either

- annually, for a forthcoming school year (e.g. by BBC, BRT, RTBF, ITV, IETV),
- once per semester (ARD/HR, ARD/SFB, ARD/WDR), or twice per semester (NOT),
- once per term (ERT, SR/UR, YLE, YLE/SP),
- periodically over the school year at monthly intervals (ARD/BR: 11x, ORF: 10x, SRG/DRS: 8x),
- bimonthly (ARD/S3), weekly (CNDP) or irregularly (RAI).

To make sure that programme information reaches the hands and minds of the teachers as directly as possible, several means have been employed:

- information is mailed to teachers' homes (e.g. by NOT);
- new programmes are advertised in pedagogical journals (CNDP, DR, ITV, IETV, NOT, NRK, RAI, SR/UR, YLE/SP);
- programmes are announced on TV (ARD/BR, ARD/HR, ARD/SFB, BBC, ITV, NRK, NOT, SRG/DRS, SR/UR, YLE);
- programmes are announced over the radio (DR, RAI, RTBF, SR/UR, YLE/SP);
- programmes are announced on a viewdata system (ARD/BR, ARD/HR, ARD/SFB, BBC, CNDP, ITV, IETV, NOT, SSR/RTSR, SR/UR);
- afternoon or early evening transmissions provide an opportunity for teachers to preview or record programmes (ARD/BR, ARD/HR, ARD/S3, ARD/SFB, ARD/WDR, BBC, BRT, DR, ERT, ITV, NOT, RAI, RTBF, SR/UR, SRG/DRS, YLE);
- viewing sessions are arranged for teachers (ARD/BR, ARD/S3, ARD/WDR, BBC, DR, ITV, IETV, NRK, RAI, SR/UR, YLE, YLE/SP);
- viewing sessions are arranged for the educational authorities (ARD/BR, ARD/HR, ARD/S3, ARD/SFB, ARD/WDR, DR, ITV, IETV, NRK, RTBF.

In the United Kingdom, an educational database called KEY has been set up by the former IBA from which programme information may be retrieved online.[24] BBC Education offers a 24-hour telephone service for details on all educational programmes and publications.

Supporting print material

Almost all organizations produce print material. Many have their own publication departments, i.e. they produce, publish and market their supplementary print material themselves (e.g. BBC, BRT, CNDP, ITV, NOT, NRK, RAI, SSR/RTSR, SR/UR); a joint publication department for both radio and television output exists at NRK and SRG/DRS.

Subject to agreements with the educational authorities, supporting print material for teachers and students is provided and/or distributed by the educational authorities or institutions affiliated to them for programmes of ARD/HR, ARD/SFB, BRT, ORF, SRG/DRS (s. above, the 'division-of-labour' model).

In other cases, specialized outside institutions, e.g. for foreign-language teaching material, provide print material supplementing school television series (e.g. Centre for Information on Language Teaching, CILT, for the BBC; the "Sprachdidaktisches Zentrum" at Freiburg University, or the "Regionalpaedagogisches Zentrum" at Bad Kreuznach for ARD/S3).

In Germany, print material is developed in the editorial offices of broadcasters but published and marketed by outside agencies. ARD stations BR and SWF (in charge of S3) have long ago created a subsidiary company called "TR-Verlagsunion" (each of them holding 21.35% of the shares, the rest being held – 3.82% each – by 15 publishers), which also caters for Telekolleg and other further education material.

Sometimes, print material is distributed by the department free of charge (RTE, YLE). Most material for ITV programmes is said to be free, although from time to time a charge is made for booklets.

Broadcasters as producers of educational media

The availability of programmes as videotapes

Programmes may be recorded off-air and re-used in classrooms either without any restriction (e.g. from ERT, IETV, NOT, SR/UR), or for a limited period of four years (DR), three years (ITV), two years (ARD/BR, ARD/HR, ARD/SFB, ARD/WDR) one year (ARD/S3), until the end of the school year (ARD/NDR), or only three months (YLE). Permission is also granted by NRK, RTBF, SRG/DRS (no limitation specified).

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[24] Cf. Christopher Jones' report in this volume, pp. 221 – 226.

In the UK, a new Copyright Designs and Patients Act came into force in 1989 that allows educational institutions to record all programmes off-air or off-cable, and make other copies of the recordings for educational purposes, if they are licensed by the newly set up Educational Recording Agency (ERA).

In many countries, local media centres record broadcast programmes and make them available to schools in form of videotapes. This is reported from:

> ARD/BR, ARD/N3, ARD/SFB, BBC, BRT, CNDP, DR, NOT, NRK, ORF, RAI, RTBF, SR/UR, SRG/DRS, SSR/RTSR, YLE.

Where copyrights are no obstacle, videotape versions of selected school television programmes can be purchased from:

> ARD/SFB, BBC, BRT, CNDP, ITV, IETV, NOT, RAI, SR/UR.

SRG/DRS allows recording and unrestricted use only in the case of its own productions and with specific contracts.

More commonly, programmes are offered on sale as films/videotapes (A2, ARD/BR, ARD/N3, ARD/S3, C4, IETV, ITV, RAI, RTBF, SR/UR, SRG/DRS).

In other cases, they may be hired from local media centres or public libraries (ARD/BR, DR, ITV, RAI, RTBF, RVU, SR/UR, SRG/DRS, YLE).

Print material

Worksheets for pupils, texts for foreign language lessons, song texts, achievement tests and the like are often included in the periodically published advance information journals. This material is structured and laid out in such a way that it can be easily photocopied for class work; copyright clearance is often explicitly stated. (Examples: ARD/BR, ARD/S3, ORF, SRG/DRS).

Teachers' Guides in form of booklets are issued by BBC, DR, IETV, NOT, RTBF, SRG/DRS, SR/UR, YLE, YLE/SP. Individual booklets, textbooks, set books for students can be ordered directly from: BBC, BRT, CNDP, DR, ITV, IETV, NRK, NOT, ORF, RTBF, SRG/DRS, SR/UR, YLE, YLE/SP.

Other types of print material mentioned are: self-instructional material (e.g. BBC, DR); instructions for excursions (NOT).

Audio-visual media

Among the audio-visual material produced by broadcasting stations themselves, we found mentioned: audio-cassettes (e.g. from BBC, BRT, ITV, IETV, NOT, RTBF); 16-mm film versions of programmes (e.g. BBC, ITV), filmstrips (BBC), slides (BBC, NOT, RTBF), games (NOT). Computer software is produced by BBC, BRT, CNDP, ITV; for YLE programmes it is produced by the School Radio Department.

Multimedia packages

Our survey did not reveal to what extent educational television services produce "multimedia packages" in a more rigid sense, i.e., systematically selected and combined sets of various media chosen according to principles of instructional technology or learning psychology.

In a certain sense, most of the common combinations of programmes with print material are produced – consciously or unconsciously – according to multimedia approaches. SR/UR and TELEAC are known to apply these principles consistently; and contributions of broadcasting organizations to distance education schemes, mostly developed outside broadcasting organizations, are normally conceived as multimedia systems elements.

But often a simple addition of two or three media seems to be the case, especially where division of labour with an outside organization has been arranged.

Some observations on formats and contents

In general, the explosion of programme offers and the competition for audiences brought about a new kind of openness to develop different, more attractive and compatible formats for television programmes.

Some remarks or responses indicated that educational programmes, too, have to be compatible in style and design if they were to attract and sustain the viewers' attention. This implies that the formats chosen had to be determined by "journalistic" thinking rather than by curriculum considerations.

Continuing education units seem to provide more and more information programmes in formats that have long since been provided by departments outside educational broadcasting, often parallel to educational programming, e.g. topic-related magazines on health matters, science, popular science, cultural issues or the art of cinema. This trend is followed by some school television departments who offer, for example, regularly broadcast magazines for current affairs ("SchoolTV-Weekjournaal", NOT; "Magellan", SSR/RTSR), environmental studies ("News from Nature", NOT), or foreign-language learning ("Zoom", ARD/WDR and others).

Formats which are the strength of television as a journalistic medium, such as documentaries and magazines, are increasingly used for educational programming, whereas "classical" or typical ETV formats (the school television series, the adult education course with ten or thirteen instalments) are declining.

Financial constraints may also determine the choice of subject areas. The move is towards more popular contents, such as gardening, food preparation, consumer education, orientation and counselling programmes. (In the near future, this type of programming could increase since it might facilitate the sale of advertising, sponsoring, underwriting etc.)

In consequence, to make sure that audiences become interested and are attracted, more programmes might be produced on what people actually want to know, and fewer programmes on what people ought to know (in terms of educational standards) or on what people are required to learn (in terms of professional and vocational training requirements).

There seems to be a trend also for school broadcasting departments to provide orientation, stimulation, sensitization for things to learn and discover rather than structured courses aiming at measurable gains of knowledge. In some cases, this complies with curriculum requirements of interdisciplinary approaches to teaching.

In ITV programming for adult education, educational programmes have been reduced to mini-series with minimum duration of eight minutes per programme. These programmes can also be produced for and inserted into daily magazine programmes at breakfast TV time where they reach up to four times more target audience members than usually (e.g. ITV's "This Morning").

Similarly, a tendency to short formats can be observed in connection with public service announcements in information campaigns; these short sequences are often accompanied by booklets, leaflets, referral services such as telephone hotlines, etc. Topics are, for example, AIDS, smoking risks, runaway children, help for people with debts (all UK).

One might ask whether these reduced formats should not be tried out one day to increase the flexibility of school television offers and to correspond to the changing conventions of youngsters as television consumers.

School television services may be enriched or supplemented by programmes that are less curriculum-oriented and aim also at non-captive audiences such as children at home or family members across the age groups (e.g. the afternoon programmes of ARD/BR; the project "Magellan" of SSR/RTSR; the newly created section "Jeunesse – Education – Formation" of FR3).

It seems that there is a tendency in the departments for children's and young people's programmes to produce series in which explicitly educational messages for youngsters are embedded. Similarly there is a development in children's and youth programming towards "genuine" TV formats, such as news, magazines, information programmes. In 1990, The Prix Jeunesse International reports that, for the first time, programmes entered in the category "Information" (including documentaries, features, reports, news, current affairs and magazine programmes) are ahead of the categories "Drama", "Variety" and "Animation".

Chapter 2:
School Television in the Nineties – A Symposium

Kees Schippers

Strategies for a Better Position for School Television in the Future

As chairman for the 27th Basel Seminar on School Television, I was asked to give an opening speech on the general theme of this meeting which was "For a better future of school television: Back to school".

I did so by analysing some arguments that are occasionally brought up against school television and by formulating five strategies to cope with foreseeable future developments. The strategies I proposed also served as suggestions for discussions in groups.

Some months later, Manfred Meyer asked me whether I could provide him with a shortened version of the paper presented in Basel as an introduction to a chapter on the future of school television in the nineties. The strategies were to set the tune, as it were, for a symposium, a simulated panel discussion, to be included in the forthcoming reader on school television in Europe.

I found this suggestion interesting, and I agreed to the procedures he proposed. What follows is a shortened and slightly revised version of what I said in Basel, which has already been printed – almost in full length – in the proceedings published by the EBU[1].

In general, I have nothing to change or to take back of what I said in December 1989, and I would leave the proposed strategies as they are. The order in which they are put is still meant to reflect priorities for action as I see them.

Thus, I put forward my views and proposals again, this time in a different context, hoping to address a larger and slightly differing community or readership, and I do look forward to the comments, criticisms, additions from my colleagues in the educational broadcasting community.

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[1] EBU 27th Internationale Seminar 1989 on School Television. Geneva: EBU 1990; pp. 8 – 17.

In previous years, introductory presentations for the Basel Seminars were often given by outsiders, and many of these outside experts remarked how educational television was under threat, that some educational broadcasting organizations were even being dissolved, and that certain strategies needed to be developed to survive. However, **what** strategies had to be applied was usually not mentioned.

Precisely this is the crucial problem. The question arises as to whether these outsiders are the right people to develop those strategies, or whether we, the workers in the field of school television, are not the better experts to do the job.

As far as school television in Europe is concerned, there are enormous differences. Summarizing, we can say that the situation varies from country to country. Some organizations are developing well, others less so. School television recently disappeared in Denmark, northern Germany, Portugal, and Ireland, and it is under financial pressure in many other countries. In some countries there is relatively little broadcasting time, and half of all countries do not produce support material. In other countries things are going extremely well: over 90 % of those schools have school television and on average each school follows ten to 13 series a year.[2]

Why then is school television in some countries under threat, why have some organizations not been able to survive or had difficulties in developing? It seems that the threats come from two directions: from the political sphere and from the public broadcasting system itself.

Despite the positive appreciation of educational television in general, the 'opponents' mostly use the following negative arguments:

1. School television is too expensive and there are alternative, cheaper forms of distribution.
2. The ratings of school television are too low.
3. There is no demand for school television.

Before we turn to possible survival strategies, we have to deal with these arguments once and for all, and we have to prove that they have no substance. Here are my objections:

Is school television really that expensive?

Making television is an expensive business in any case. In the Netherlands, a country of 15 million inhabitants, there are three public television channels and five radio channels, and two new commercial broadcasting organizations. The total broadcasting budget, stemming from licence fees and advertising, amounts to 1,000 mill. HFL.

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[2] Cf. M. Meyer: On the Situation of STV in Europe; this volume, pp. 17 – 54.

From this sum, school television receives 15 mill. HFL, which is 1,5% of the total, and we produce some 350 programmes a year with it. The schools pay 3 mill. HFL in annual television fees, so it costs the Government 12 mill. HFL a year, which equals about 5 million US$.

The education budget in the Netherlands is 30,000 mill. HFL. There are 14,000 schools in the country, some 3,000 of them are secondary schools. The running costs of an average secondary school with about 70 teachers is approximately 7.5 mill. HFL per year.

Thus, the cost of school television in the Netherlands, with some 350 programmes a year and 60 regular and 30 freelance employees, is not more than the money required to run two secondary schools!

What about alternative forms of distribution?

The open channel system is the cheapest distribution system for schools, and it is the most democratic one, since the costs for reception and utilization are the same for all schools. All the other forms of distribution have important financial and organizational barriers to participation. Recent research shows that distribution of programmes via satellite is already cheaper than the distribution of 500 videocassettes by mail.

What about the ratings?

When the organizations compare ratings, school television often comes off badly. Ratings are sacred, and as the cultural approach to making television programmes is becoming less important owing to the ratings race, school television is often the first to go.

But are the ratings for school television really that bad? Compared to entertainment or variety programmes, they are. However, that is like comparing apples to pears. We must stress the fact that school television has other criteria than entertainment.

Again, let me use an example from the Netherlands. We broadcast a weekly news programme on school television for ten- to 12-year-olds. Some 250,000 students watch the programmes over a 32-week period, which is the equivalent of four full football stadiums every week. The figures represent 50% of the target group. The programme costs 35,000 HFL, or a little more than ten cents a student per half-hour programme. Is that so bad?

Educational and cultural programmes seldom reach an audience of millions. Statistically, low ratings within the whole population are not a threat to a programme, but low ratings within the target group for whom the programme is intended do form a serious threat.

Is there a need for school television?

It is said that school television costs a lot of money and that it can only be justified if there is sufficient demand.

What has been said above has already answered this kind of criticism. Besides this, one should ask the educational institutions themselves whether they would regret to see us go, and the answer would be yes. We obviously produce material the schools appreciate.

What is it that makes our products valuable to education? In a study conducted in the Netherlands in 1985[1], we asked the teachers themselves, and they provided the following answers, in order of importance:

1. School television can show pictures of things that are difficult or even impossible for the school to show.
2. School television can pay attention to and give information about current affairs in a gripping way.
3. School television can explain matters we cannot explain as clearly without it.
4. School television is easy to handle; nearly everyone can operate a television set and a video recorder.
5. School television is varied and children find it interesting. We make use of that fact.
6. School television has the capacity to motivate students for certain subjects.
7. School television provides us with material we can use again and again on a video recorder. It gives us a multi-media centre, free of charge. It is a cheap medium for schools.
8. School television can help teachers in subjects they are not too sure about, or where innovation is at hand.
9. School television not only provides us with television programmes, but also with the support material (instructions for utilization in the class, attractive exercise books).

At least in the Netherlands, teachers want more school television; five to six hours a week is considered a minimum. A continuous supply of programmes for various subjects and target groups is required.

The shortage of school broadcasting time is one of the major problems of many school television organizations. With a minimum of broadcasting time, one can never completely link education to school television.

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[1] NOT; INTOMART: School Television: Opinions and Needs in Primary Schools. Hilversum: NOT 1985.

There is a market for school television, which means that there is a need. It is of use. One would not like to do without it, and there is great demand for it. Obviously, one would like it to be less marginal.

In fact, the public, and especially those who are in some way connected with education, are convinced of the usefulness of school television, especially in an era when television is becoming more and more superficial and commercial, and the need for quality television is more and more strongly felt, as the literature indicates.

In the following strategies, the basic aim is to strengthen the relationship between school television organizations and the field of education.

Strategy I:
The relationship between school television organizations and regular education should be strengthened structurally

In a political and organizational sense, there is generally little relation between school television organizations and education. It all revolves around the question, 'Is school television an organization of and for education or is school television a department of a general broadcasting organization?'

In Europe, we have several organizational models:

1. School television is produced by an autonomous broadcasting organization which is part of the public broadcasting system, having its own legal status and therefore its own broadcasting time and being paid for by the licence fee.
2. School television organizations as a department of a general broadcasting organization but having a **structural link** with education.
3. School television organizations as a department of a general broadcasting organization **without a structural link** with education.

I prefer the first model, since it describes an organization in support of and created for education, capable of taking all the educational demands into account. In such an organization, an independent educational policy can be carried out; educational criteria are more important than broadcasting criteria.

The second model can function if there is a structural relationship between educational institutions and broadcasters, preferably established by law. The risk is that the educational organizations are only called upon for advice, and advice loses force in the complicated process of making programmes. Educational organizations should be able to determine at least part of the programming policy, and they should have a say with regard to the quality and suitability of programmes.

Both forms of organization, however, described as models 1 and 2 have the following advantages:

- They guarantee that school television programmes have a greater impact because they are generally closer to the needs of education.
- Greater effectiveness makes for increased participation and appreciation, while also increasing the positive image and efficiency of school television.
- In times of crisis these forms of organization can usually depend on the support of broadcasting and education authorities alike.

The third model is the most common. If however the school television department is only a part of a public service broadcasting organization, certain negative aspects cannot be overlooked.

1. The management of the public service broadcasters is not made up of representatives of education and is therefore not capable of determining its own school television policy. Abrupt changes in education policy cannot be followed or adequately converted into programme policy.
2. In such broadcasting organizations, education only plays an advisory role because responsibility remains in the hands of the broadcaster.
3. The school television department gets little attention in such an organization, especially in comparison to entertainment, sport, and news. When there is a shortage of money, the departments for educational and cultural programmes are the losers because of their lower ratings.
4. The marginal position becomes evident in staff and operational policy, too. The status of employees in educational television is sometimes considered to be lower, and less capable employees might be placed in the education department. Some employees do not have the ability to translate educational purposes into projects required by schools. In short: the broadcasting system ignores the fact that making educational television requires a high-quality specialization.
5. Applying broadcasting criteria when producing educational programmes means that the two sets of criteria often clash. The problem lies in the discrepancy between quality by broadcasting standards (picture, sound, image, tension, timing, camera angles) and effectiveness in the educational sense, i.e. the passing on of information. As Anthony Bates[4] observed:
   "The restless and fragmented nature of popular television formats is the greatest obstacle to learning directly from broadcasting. To slow down the pace and to hold shots, giving learners time to observe, to think, to make their own connections; to provide repetition, summaries and feedback within a programme; to provide a simple and clear structure, all require courage and willingness to

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[4] Anthony Bates: Broadcasting in Education. An Evaluation. London: Constable 1984, p. 187

be unorthodox; so entrenched is the idea that complex structures and short, sharp sequences are the essence of 'good' television.''[5]

6. Broadcasting organizations do not pay any attention to research into didactic functionalism and the effectiveness of educational programmes or to a regular feedback.
7. The television medium is the most important for broadcasting organizations, which means that very little attention is given to the multi-media composition of courses.
8. Public relations and information about school television is of minor interest and there is no educational specialist in the PR department of the public service broadcasting organization.

What can we do to improve the structural relationship between broadcasting and education?

Everywhere in Europe, we observe big changes in media legislation: decentralization, demonopolization, privatization. Satellites and commercialization provoke new legislation. Now is the time to draw attention to a structural improvement of the position of educational television in media legislation. Education via the broadcasting system would then be defined by the law, with its own target groups, criteria and policy.

In an opinion poll among members of the EBU Working Party , a large number of organizations said they would aim at a better relationship with education in coming years. In terms of policy, this means orientating, informing, and mobilizing political forces in each country with regard to the importance of getting independent educational broadcasting organizations or having the position of educational broadcasting legalized.

In the United Kingdom, the Government's White Paper on broadcasting was amended to safeguard educational broadcasting, as a result of good lobbying.

Let us also inform, lobby and mobilize political forces on the European level as a whole. Collectively as an EBU team we should launch a campaign to present our demands in the international bodies.

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[5] In its most extreme form we find this way of attracting attention in advertising techniques. I call this 'video clip education', or 'educainment'.

Strategy II:
Programming should largely be based on market research

The freedom of the producer has for years played an important role in the broadcasting world. Yet broadcasting has evolved from a creative, experimenting enterprise into an information industry, based on the analysis of cost and profit – from culture to service.

Educational broadcasting has its market, with its demands, too, and in the coming years, it will have to adjust itself to the demands of its market as much as possible. Are we making the programmes the schools require? Can the teachers use these programmes? What exactly do they need?

Some organizations have been doing market research for years and are now benefiting from it. Naturally, the dictate of market research (reflecting the teachers' desires) sometimes clashes with the demands of the producer. The time has passed when producers had the freedom to choose their own subjects, but there is creative freedom within an imposed subject-matter nonetheless.

Whether you do market research through education officers, questionnaires or with an Electronic School Panel[6], as we use it in the Netherlands, is not important. It has to be done. It is better to spend money on research than on a greater number of programmes! We have to keep on asking the question, 'Who determined the subject of this programme?'.

Strategy III:
Research must also play an important role in the production and evaluation of programmes

Research can increase the effectiveness of programmes. If previews are held with the target group, the didactic impact of a programme can be determined. The right adjustment of a programme to the knowledge and standard of education of the target group is an important element in the quality of school television. School television must be made-to-measure, not off-the-peg.

Research into the use and acceptance of programmes that have been broadcast is of value for possible repeats and for programming policy. The selection of weak and strong series determines the total range of programmes on offer. Research data have political value, too: without them, there is no defence against external pressure.

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[6] Cf. Dick van Zon: School Television Research with the Aid of Telecommunication; this volume, pp. 477 – 484.

Another form of research is that on the use of programmes in class. Much attention has been given in recent years to interactive video that is supposed to encourage the individual learning process. Research in classes, however, has indicated that it is better to promote a different form of interactivity: class interactivity. Programme formats in which the teacher is forced to interrupt the programme to ask questions and give assignments are clearly more effective than linear programme formats.

Strategy IV:
School television programmes should be part of a multi-media series of courses

Half of the school television organizations in Europe produce television programmes without support material, and the other 50% do it very sparingly. Sometimes the support material is produced by third parties, little attention being paid to its integration into the programme. The development of a total concept for the multi-media project is hardly considered.

Research indicates that learning results are best when there is a multi-media approach. Television is a highly motivating medium, it is visual and actualizing, but at the same time fleeting. In-depth understanding of the subject-matter demands the use of other media. Do not leave this matter to the initiative of the teacher; supply complete, high-quality material.

The support material should at least consist of effective instructions for the use of the programme, background information, and guidelines for the students. The price and quality of the material determines the level of participation.

Strategy V:
Public relations for and information about school television must be intensified

A school television product developed on the basis of market research should be publicized by modern methods. In general, the educational world is familiar with school television, although it needs to be continuously confronted with the programmes on offer. In elementary education this usually occurs by means of school television guides. It is often more difficult in the case of secondary education with its specialized teachers. In many cases, direct mailing appears to be the answer. Publishers use this approach, too.

Promotion is not only concerned with increasing participation, but also with strengthening the image. School television programmes are generally broadcast during the day, so the general public is not very familiar with them. Politically, however, it is important to reinforce the positive image among the general public, especially among parents, as has been done in the USA with public awareness campaigns.

National and international campaigns can be a valuable support. An EBU group could collect material to inform politicians, administrators and journalists about school television. One should collect success stories, research results and the experiences of teachers and publish the material; lobby politicians, administrators, and journalists, using the slogan, "Our ratings are low but we have a good and well-informed press!"

Initiate campaigns and international projects and make a good international commercial for school television, an international school television day or something like the European championships for school football, to win the school television cup. An excellent initiative is the awarding of a prize for the best European school television programme, a first in the history of school television, which will take place at the end of this week.

Conclusions

Over the past 25 years, school television has moved too far from the educational market, owing to the influence of the broadcasting system. All the above strategies have one common factor: back to education! Only when all five strategies are used in conjunction will there be a greater chance of success.

It is especially important to strengthen the educational component. One thus adds to the effectiveness and recognizability of school television for the teachers, and school television will return to the domain of education: the school, with its teachers and students. A better integration of school television will strengthen its political force, and it will be less threatened. The educational criteria will be decisive. We must get rid of our inferiority complex with regard to general programming. We make different television and not inferior television. The quality of our product is not determined by ratings.

The fight can only be won with good and usable projects that meet all the basic requirements. We make class television. Education has a right to it because even the best is not good enough for education.

Lothar Humburg

Prospects for the Nineties – or: On the Possibility of Serving Two Masters Without Using One to Deceive the Other

In one of the first issues of our monthly journal for teachers, in "Praxis Schulfernsehen" No. 5, producer Stefan Bartmann called for "More television in school television!"[1]. That was in 1976.

Thirteen years later school television producers throughout Europe were preparing themselves for a discussion at the 27th Basel Seminar on the counter-demand: "More school in school television!"

What was it that got this subject on the agenda? Did the editors allow themselves to be so carried away by the possibility to pull all the strings of the art of television that they forgot who they are producing their programmes for? Is the future of school television to be found in resolutely recalling the school's requirements, in strictly gearing its broadcasts to the guidelines and curricula valid at a given time?

Can school television only usefully support learning processes when it practises asceticism, because an altogether too sensual show of pictures leads the schoolchildren to adopting an undesirably emotional view of the world, and because programmes with a high entertainment value prevent rather than encourage a sober, distanced processing of what has been seen?[2]

In order to answer these questions we must recall the "law" according to which the Westdeutscher Rundfunk's school television began its work 20 years ago.

The context model is not obsolete

At that time the initiators of school television had three models to choose from: the enrichment model, the direct teaching model and the context model. In consultation with the Ministry of Education they decided against a model which tended to enrich certain areas by chance and against television as a substitute teacher (direct teaching) and in favour of the context model. That means that they conceived the school television programmes as tuition building blocks which do not develop their full media-specific learning effectiveness until they are combined with other building blocks, such as text book chapters, work sheets and, above all, discussion between teacher and pupil.

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[1] Cf. Stefan Bartmann: Mehr Fernsehen im Schulfernsehen. In: Praxis Schulfernsehen; vol. 1, 1976/77, No. 5; p. 16.

[2] Cf. Stefan Bartmann, ibid., pp. 17–18.

The school television producers at WDR and other ARD broadcasting stations have adhered to this basic concept up to now, because it minimizes the shortcomings of television as a tuition medium and makes best use of its strengths.

The shortcomings of television as an instructional medium can be easily described with the key words 'one-way communication system' and 'mass medium'. It shares these shortcomings, incidentally, with other teaching and learning aids such as textbooks, taped programmes, slide series etc. None of them can be geared precisely to the special learning requirements of a certain class, let alone of an individual learner, none of them can react directly to any wish or directly answer any question on the part of the pupils. They all depend on teachers, who are the only ones to know when and how they can most usefully include which section of the textbook or which radio programme or which television broadcast in their lesson.

The strengths of television as a teaching medium can also be – roughly – named in a few key words: clarity, the power to motivate, realistically imparting second-hand experience where first-hand experience cannot be imparted. The more consistently all concerned with a learning process follow the basic rules of the context model, the more consistently the school television producers can make full use of these strengths of their medium. This is something they have not always done in their years of apprenticeship – and it would be too bold of them to claim that their years of apprenticeship were now completed. Some examples from the 'list of sins':

(1) In physics programmes experiments were shown which schoolchildren could perform for themselves without too much trouble and without any risk to life and limb: which means sinning against the experience that learning by doing always has a longer lasting effect than learning by watching.
(2) In foreign language programmes new words and expressions were introduced before the 'actual' acted scenes or documentary material: which means sinning against the experience that it is precisely television which, by combining the acoustic and visual presentation of communication situations, can provide learners with an opportunity to learn the meaning of "new" words and expressions from the context.
(3) Again and again "television teachers" appeared in the programmes: which means sinning against the better knowledge that even the best television teachers

are hopelessly inferior to their colleagues in the classroom, because they can neither see nor hear their pupils.

Everything indicates the advantage of adhering to the context model on school television, which basically means nothing else but a pedagogically useful distribution of the instructional tasks between teachers, text books, apparatuses and auditory, visual and audio-visual media.

In this connection the editorial board of the WDR School Television Department sees its future task in further reducing the 'list of sins' and banning everything from the programmes that can be imparted more individually by teachers, and more action-orientated by teaching and learning aids other than school television.

But a consistent restriction to the media-specific possibilities of television must, logically, lead to: More television in school television. This does not mean more action for the sake of action nor electronic paraphernalia as a substitute for convincing dramatic presentation.

But the thoroughly researched documentary must also allow for an emotional appeal, to make the viewer feel involved, if it is intended not only to impart facts but also to give rise to discussion. And is it pedagogically a disadvantage if, for example, case studies are presented in the form of play scenes, which have a distinct touch of entertainment?

Do those pupils learn any better who carry out the instructions and follow an illustrated, unemotional talk on the screen, or those who, spellbound, follow the report of an expedition or identify themselves with somebody from a social study who is close to their own world? School television producers agree at any rate with those educationalists who are convinced that primary motivation is more effective for learning than secondary motivation.

Serving two masters?

The concentration on the media-specific forms of imparting factual knowledge, experience and also aha-experiences, which school television has been increasingly concerned about for some years, has in the meantime resulted in an obvious increase in the numbers of viewers "from outside" in the afternoon.

WDR producers already receive more letters on their programmes from people who left school long ago than from the schools themselves. Their motives for voluntarily returning to school television classes vary considerably:

- For some it is the historical and geographical subjects which attract them to the screen between 5 and 6 pm, to follow broadcasts like "Our Distant Neighbour

the Soviet Union", "The Town in the Middle Ages", "War Years in the Eifel", "Between the Baltic Sea and the Thuringian Forest".
- Others want to make use of foreign language programmes to prevent their knowledge of English and French from becoming rusty.
- Others again find the programmes in the series on current politics especially helpful, because they present the impact of political decisions on the citizens' lives by using examples from their own fields of experience and in a language that is generally intelligible.

Some viewers also write in to say that school television gives them a chance to catch up on "lessons they had missed" – subjects which, when they went to school, were not even on the syllabus – and so they learn along with their children.

Does this increase from the general potential of viewers mean that school television is now trying to serve two masters? Or does it even want to exchange its original target group for a new one in order to achieve higher audience ratings?

Certainly, the WDR and its school television team are interested in as many programmes as possible reaching as many viewers as possible. Certainly, even after 20 years of school television in North-Rhine Westphalia there is still many a teacher who has not yet discovered this medium for his or her lessons.

On the other hand, the school television producers in Cologne do not have to be worried about the audience ratings, because they know that, when the programme has been recorded once at a school, it can and, as a rule, will be seen by a large number of schoolchildren. And when the Rhineland Film Service alone registered over 2,000 recordings for schools as part of their "breakdown service" and when about two-thirds of all schools in North-Rhine Westphalia have for years subscribed to the journal "Praxis Schulfernsehen" with its information for teachers' and pupil's worksheets that may be copied, then these figures also show that school television is not tantamount to an unpopular duty being carried out under public law.

These figures also show that "opening up" school television programmes for groups of viewers outside the school is not a betrayal of its original clientele. It shows that it is possible to serve two masters without using one to deceive the other. After all, the maxim "More television in school television", as we have tried to show, is not a sin against the idea of the context model, but a good – though not the only conceivable – method of translating it into practice.

Variatio delectat

Of course, the separate building bricks of the tuition could be held together even more closely. In the Netherlands, for example, this is the case: the school television station NOT is engaged in publishing and producing combined media systems in the form of courses for a whole school year: series of programmes, teachers' handbooks, text books, folders of pictures. The Dutch schools are offered complete menus and they make good use of them.

In Germany this is not possible for legal reasons. Here the schools have to dine 'à la carte'. But although it is often easier not to be burdened with the agony of choice, it does have its advantages if you do not have to take the rather unappetizing soup and the standard pudding to go with the main course, but instead feel free to order melon with Parma ham and a selection of cheeses to round off the meal.

WDR school television will in future not make up its menu from recipes taken from cookery books from all the countries of the world. The core of the programme will continue to be healthy plain fare as is envisaged for the schools in North-Rhine Westphalia. But the editorial department will still try to ensure that the meals are tastily prepared – first of all for its regular customers, but also for the non-school audience.

In order to be able to offer an even more varied menu in the future the editorial board will take over more programmes from other departments of the WDR as well as from other broadcasting stations at home and abroad. The selection will, of course, still be made according to the criterion of their suitability for lessons in North-Rhine Westphalian schools, and where necessary these programmes will be revised (shortened, lengthened, given new commentaries). Some new programmes will at first only be shown in the afternoon, and it is left to the teachers to decide whether they should be shown regularly for schools.

Variatio delectat. However, WDR school television producers do not want to interpret this Roman proverb the way some producers of entertainment programmes do: Let's offer a lot to the many and there will be something for anybody. But by offering a wide variety of programmes that are suitable for schools we would like to give as many afternoon guests as possible the feeling that the programme always contains valuable information for them, something that is interesting and worth seeing.

Comparing apples to pears

When I wrote the above in the summer of 1989[3], I only knew that Kees Schippers, as the teaching director of the 27th Basel seminar, was going to invite school television producers to return to education. Now, with his paper in front of me, I ask myself whether our respective "survival strategies" are as far apart as they seem to be at first sight.

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[3] Lothar Humburg: Perspektiven fur die neunziger Jahre. In: Praxis Schulfernsehen, Vol. 13, 1989, No. 159

To begin with, I fully agree with Kees Schippers when he says that school television is comparatively inexpensive and the cheapest system of distribution of audio-visual material. I also agree that one must not compare apples to pears or, in our case, the ratings of school television (and other educational or cultural) programmes to those of programmes of a mere entertaining character. Finally, I agree that school television producers cannot sit back and be content with what they have been doing over the past two to three decades lest we should find more white patches on the European school television map. That is why Kees Schippers and his colleagues developed their strategies towards a better future for school television, and my colleagues and I developed ours.

Furthermore, I am as convinced as an outsider can possibly be, that the NOT strategies are valid ones – for the Netherlands. However, unfortunately, one cannot compare the general conditions for school television in one country to those in another country, not even in the case of next-door neighbours like the Netherlands and Germany, or else one would be comparing apples to pears, which one must not do – as Kees Schippers states correctly.

The Netherlands differ from most other European countries in the way they have organized their broadcasting system. Theirs may very well be better and closer to the basics of democracy than most of the other ones. However, there is next to no chance that other countries will reorganize their broadcasting systems on the basis of the Dutch model, even if it were only a question of shuffling about some thousand employees and redistributing a huge number of production facilities. In the case of a federal republic like Germany one would either have to set up school television stations for each individual Land which would, indeed, render school television terribly expensive, or else one station for the whole of Germany – with the consequence of an endless struggle of producers and advisory boards to make the ends of almost twenty different curricula meet.

Thus, school television producers in Germany (as in other countries) will have to live on without a broadcasting organization of their own. They will also have to live on with informal rather than structural links to (the ministries of) education. This, however, need not be an altogether bad thing, since with many cooks there is always the danger that the broth will be spoiled or at least watered down. Of course, it would be stupid of school television producers not to ask what the schools' demands are and not to listen to what educationalists have to tell them. But in many instances it has been proved that producers stand a better chance to come up with high quality school programmes when they are free to pick their advisers from a greater number of experienced in-service teachers rather than to have to get along with school authority delegates who possibly saw the inside of a classroom some twenty years ago.

I will refrain from commenting upon the other strategies which Kees Schippers put forward although they are most certainly worth further discussion. Instead, I will end by saying that, although the NOT and WDR school television concepts seem to differ greatly – the respective war-cries being "back to education" and "back to television" – the actual Dutch and German school television programmes do not differ that much. Judging from what I have seen of NOT broadcasts they do not lack entertaining elements. Why, indeed, should school television do without, since we all know that learning with fun is far more effective than learning for good marks (or whatever secondary motivation there may be)? – On the other hand, WDR school television broadcasts never – almost never – use entertaining elements for their own sake, but as a means to get and to keep the students interested in the subject matter at hand. While opening their programmes to the general public, WDR producers always bore in mind that they have to gear their programmes to the learning faculties of school kids. The general public – those among them who want to keep the process of lifelong learning going – accept what school television has to offer them because its programmes are clearly structured and in a down-to-earth easy-to-understand language.

Terry Marsh

School Television in the Nineties – A Matter of Style?

Young people have three sources of television programming available to them. By far the largest number of hours comes, of course, from the general transmission available to all. But there are also those two forms of programming made specifically to take account of their youth – children's television, and school television.

These two forms have much in common, as they both have to address a wide range of audience maturity; both demand an informed use of language; both are required to have a sense of social values; and it could well be argued that both types of programming need a particularly committed producer.

Children's television and school television have much in common, although the organizational links are not always strong within individual broadcasting companies. Nevertheless, the future of the one may well be bound up with the future of the other.

Throughout Europe there is a long tradition of programme making for children. It reflects the individual cultures of the nations and the grand culture of Europe. As the nineties take us to the millenium, however, that tradition of European excellence is being doubly challenged by two interconnected threats.

Firstly, there is a tendency for individual broadcasting companies to reduce their commitment to 'children's programming' in favour of the more broadly targeted genre of 'family programming'. At the same time, US companies such as Disney and Children's Television Workshop, are selling their pre-packaged children's product to broadcasters throughout Europe. The result of these trends could be a standardization of European children's television on a North American model.

This means that if Europe wishes to have a strong and positive influence on its youngsters, European schools' programming must maintain its position as far as possible as a European resource. The North American model of schools programming is not strong, and there is the opportunity to reverse the trend in this genre, and begin to influence North America with European programming. Festivals of Schools' Programming, such as the annual screening session Firstview, held this year in Cleveland, Ohio, reveal the high quality of European programming to North American buyers.

Firstview also revealed a number of successful European/North American co-productions that had resulted in bringing more money into European programming. If this is the way forward, the outlook must be brighter for this very specialized form of programme making.

The programme-making climate

Although the outlook may be brighter, the last few years have not been easy ones for the European television industry in general, and educational programming in particular. School Television is experiencing change on a massive scale, and it could be argued that facing the changes and coping with them are the most that any television department could do. The problems faced are, after all, fundamental:

- changes in technology;
- changes in the structure of broadcasting;
- changes in the educational world;
- changes in the viewing habits of society.

Changes in technology have altered the very programme-making process, with more video instead of film, and a move to stereo sound and digital formats; this involves capital investment and a programme of training.

Changes in the structure of some European broadcasters are putting additional economic pressures on school production departments – and some have closed down completely. At the same time, the field is being opened up to independent programme makers throughout Europe, and new satellite channels are eager for educational material.

Changes in the educational world are putting even greater didactic demands on our product, as teachers require targeted resources to deliver particular aspects of the curriculum. And finally, changes in the viewing habits of society mean that our audience brings a more sophisticated appreciation of the television medium to the classroom; teachers and children alike need quality programmes that stand proudly beside the best of the general television output.

Targeted programmes

So what are different types of programmes that could flourish in this new climate? Irrespective of programme content – Maths, Languages, Art, whatever – the programme style will be affected by all the above changes. The new technology, new systems of delivery, changing educational perspectives and a media-literate audience, will all ensure that school programming of the nineties has a different look to programming of the past. This does not imply that it will be uniform, in fact it will have a variety of styles.

Style is a function of purpose, and school television must know what individual programmes are aiming to do, before deciding on the style of programme delivery. The purpose of a programme – questions such as: Who is its audience? What does it aim to deliver? How will it be used? – will suggest certain production styles.

What follows is an attempt to categorize those styles, as a way of classifying school programming, so that programme makers can better converse with each other about school television; co-productions and programme sales will be easier if there is a common vocabulary.

Five programming styles for school television

Any programme has a lot in common with every other programme, but looking at the way in which a programme is used, they can be grouped into five basic categories:

1 – overview of an issue;
2 – springboard to motivate pupils to discover more;
3 – narrative with more implicit teaching content;
4 – interactive with opportunities to use the pause button;
5 – resource, a selection of unconnected examples.

Obviously, such programmes could be used in different ways by different viewers, but the main purpose of the programme is what is being considered here.

The overview programme would be, perhaps, a Geography or History programme, viewed by the class in its entirety at one sitting. Such an issue as the use of land at a river estuary, or the build-up of troops and a major battle would fall into this category. The essence would be analysis, with differing viewpoints cut together to give a picture of the whole.

The springboard programme which motivates pupils to discover more, is viewed in short appropriate sections, relevant to the classroom situation. Science is often delivered with this format, as there is often a need to follow up an idea such as force/weight equivalency at some length. It still has the shape of a single programme, but the teacher can easily pick and choose self-contained pieces.

The narrative programme, telling a story, has a deliberately implicit teaching content, and would again be viewed in one sitting. A Personal and Social Development programme, such as a drama about the trials of young love, would often be made in this style. The didactic content is often lost on the students if it is too overt or patronizing, so the teacher will draw it out of the students in discussion. A similar format could be used for encouraging older reluctant readers. To the knowledgeable eye, this style of programming is packed full of content, but to the uninitiated the content is well disguised until revealed by the teacher.

The interactive programme is full of opportunities to use the pause button, yet intended to be viewed in one sitting. The class will want to ask questions, the teacher will want to add extra information, yet the story must be told completely. A sex education programme could well be of this style.

The resource programme is essentially not a programme, it is a video containing a selection of unconnected examples. It makes no attempt to have a programme shape, with a beginning, middle and end. It may even be in some way time-coded for ease of finding specific sections. It is a selection of visual materials that are unobtainable elsewhere, or difficult to replicate in the classroom. Ten difficult chemistry experiments would fit this style.

The way forward

In the eighties, school television was generally shifting away from the overview to the interactive kind of programmes, as educationists pressed for questions rather than answers. As the use of recorded television increases, however, perhaps programmes should return to the more didactic overview at the expense of the springboard and the narrative? Or perhaps we should abandon the concept of 'programme' altogether, and move wholeheartedly to the resource?

The answer, of course, is that we need to assess all styles in relation to need. However, if European programme makers are prepared to acknowledge that the market is truly global and still a broadcast resource (whether by transmitter, satellite or cable), the style of programming must reflect more than a mere parochial market and video-based use. In other words, we are making programmes to be seen by the general public as well as the student in a classroom context.

In North America, school programming is usually delivered on video, or by specialist satellite channels, and it could well be this restricted system that prevents the genre of school television from flowering. The variable-quality production values may result from the fact that the programmes are thought of first and foremost as video resources. (Video, as opposed to broadcast programming, is a new medium, and in many hands it is as unsophisticated as some black and white movies appear to us now.)

European school television must maintain its broadcast presence, with targeted programmes made in a variety of styles. If we can continue success and build on it, school television will be one of the few areas where the North American market will be buying from us, rather than selling to us.

Hans Jörg Vogel

Bavarian School Television: A Milestone for the Lessons – a Small Stone for the Mosaic of the Main Programme in the Nineties

In the 60s it was possible for the first time to impart to many knowledge which only a few possessed immediately and directly through the new medium of television. Now no longer were a few privileged people who had accumulated this knowledge exclusively for centuries the beneficiaries: for the first time the chance opened up of democratizing education in the areas of adult education, continuous and further education and, of course, the schools as well.

What was understood by democratizing education was the uniformity of the material offered, the equal standards of didactics and pedagogy and the independence from circumstances of time and space on the basis of the autonomy of the German 'Länder' in educational and cultural matters, taking into consideration their special features.

It was thus especially school television which made it possible to serve town and country schools without making any difference; "poor" schools in weakly structured regions could benefit to the same extent as well-equipped schools with qualified teachers, for at this time there was a grave shortage of teachers. The pioneering achievement of these years therefore consisted in imparting to schoolchildren in telegenic packaging what they were required to learn in order to help to compensate for the shortage of staff.

On the other hand, those who paved the way for present-day school television realized that the new medium was basically suited especially for didactically presenting and imparting knowledge in a visual manner which is lively and vivid (according to Pestalozzi the "foundation of all cognition") and to pass it on with new methodological ways, knowing, of course, that in every learning process visualization has to come before abstraction.

It was under these circumstances that the Bayerischer Rundfunk (BR) started its school television in 1964, embedded in the newly created – formerly so-called – "Studienprogramm" (study programme) which – free of any restrictions imposed by audience ratings – could by no means be and did not intend to be a full programme and which chiefly offered broadcasts in the areas of education and culture.

The BR was thus the first broadcasting station in the ARD to regularly transmit school television broadcasts, and it endeavoured to cover as many subject areas as possible through new productions, which as far as funding and production facilities were concerned it was also in a position to do.

But it was not just a matter of producing programmes, at the same time the ways of receiving them had to be expanded at a faster pace: it turned out to be possible to offer the schools first television sets and then video recorders as well at an extremely low price, since they were subsidized by the BR's subsidiary company for advertising. Today at least the basic provision of equipment is ensured throughout Bavarian schools, so that this assistance has become almost superfluous.

Another kind of service can still be made use of as well: the "Landesbildstelle Südbayern", a regional media centre for South Bavaria, will record free of charge at the schools' request those broadcasts which German copyright law permits to be used in the lessons, i.e. all those programmes which are clearly designated as school television broadcasts, or broadcasts from the general programme which are marked "Recording allowed".

Nevertheless, even these have to be erased at the end of the second school year which follows the transmission, which unfortunately makes it difficult to set up video libraries at the schools, although that would, of course, be desirable; unless these broadcasts are repeated in good time so that any obligation to erase the tapes practically no longer applies. The Federal Republic's 'Länder' are all dealing with this problem.

What is, however, significant for the liberalitas rooted in Bavaria's adherence to tradition is the relationship between the Ministry of Education and the responsible production department: from the beginning there was agreement that the school television programmes and the relevant support material should always be financed by the broadcasting station itself out of television licence fees.

The subjects are selected on the basis of the Bavarian curricula, as agreed in the legislation on broadcasting. Beyond this the Ministry of Education has no influence. That means there is no "trial run" of school broadcasts (until they are finally approved or not) by a commission with members concerned with educational policies. Instead, there is mutual consultation whenever it is sensible and cooperation whenever it appears useful. It is on the basis of this level of action that school television in Bavaria has lasted until today.

The need for action, however, has changed here and there, and the possibilities for action that have remained call for modification and concentration: thus teacher substitution is no longer what is demanded, and programme variety is a task to which there are certain limits.

School television has for years been an integrated means of instruction, as far as its status is concerned. Now it fulfils its purpose in selective points of emphasis, in a full programme, which under the name "Bavarian Television" has replaced the education and culture oriented "Studienprogramme", and thus also gives more consideration to other sections of the programme, such as current affairs reporting, "value-free" entertainment and sporting events. Thus school television has to prove its ability to be integrated not only into the lessons but also into the afternoon programme as an informative and entertaining component.

At any rate, its suitability for lessons according to the type of school, subjects and school level can only be seen now in the repeat of the broadcasts in the morning programme printed in the press and in the monthly magazine "Familie und Schule im Fernsehen" (Family and school in television), which goes hand in hand with the broadcasts. It contains, in attractive packaging, summaries of the contents and descriptions of the learning aims as well as facts on the subjects, ideas for preparing the lessons, and work sheets trimmed with photos and drawings.

School television itself now tries – with this support – not only to fulfil expectations, but it also expects the teachers, with its help, to make learning as easy, enjoyable and exciting as possible for the children and young people.

So school television helps the pupils, but challenges the teacher and reduces his work load at the same time. It challenges him, since, depending on his class situation and with a knowledge of what the broadcast contains, he has to decide on how to prepare and follow it up for use in his lessons (e.g. by observation assignments, group work, by using the entire broadcast or dividing it up).

School television also reduces his work load, however, since, being the most attractive means of instruction, it offers him good chances for motivating his pupils and for making his lessons interesting.

The selection of subjects is based on the requirements of the Bavarian curricula and on whether the learning contents cannot be acquired, or only acquired with difficulty, through the direct, primary experience of the children and young people.

In structuring the form and contents of the broadcasts it has to be borne in mind that about 78% of information assimilation takes place via the eyes, 13% via the ears and 3% via the senses of smell, taste and feeling; and the retention rate is about 10% for reading, 20% for hearing, 30% for seeing, but 70% for seeing and hearing.

This means that the programmes are successfully adapted to the media when the contents have been primarily imparted visually and supplemented by verbal information. With the viewing habits of the schoolchildren during the private (and mostly unsupervised) consumption of television borne in mind, these considerations lead to a few programme premises when conceiving school television broadcasts:

1. Less abstraction – more visualization
   This means that confrontational lessons have no place in school television. It is here more a matter in particular of using the technical potential and devices for drama offered by the medium.

2. Less knowledge – more experience
   It is important, over and beyond purely imparting knowledge, to concede an important status to the affective area, that is the emotions, the mind and individual reactions.

3. Less instruction – more participation
   Importance must also be attached to the way the broadcasts have been adapted to the target groups. The pupils should feel that they are addressed personally. That requires the material to be taught and problems pointed out on the basis of an environment of the children and young people that they themselves can experience as far as possible.

4. Less information – more motivation
   If the cognitive contents are administered in reasonable doses the attractive "packaging" is of fundamental importance. Here it is not only a matter of a motivating entry, but of structurally permeating the whole film with tension which grips the pupils from beginning to end, as well as with humour and closeness to life in keeping with their milieu.

In this way a school television programme – related to the curriculum and didactically structured – becomes a valuable means of instruction under the supervision of the teacher.

A clear advantage of school television over the school film is that it is topical and specially coordinated with the Bavarian curricula. As, however, for financial reasons the production volume has clearly decreased in the last ten years, the number of broadcasts suitable for the repertoire is constantly dropping.

Thus today only about 10% of the roughly 300 transmission slots per school year can be occupied by new productions. Here, however, the broadcasts provided by other production departments (history, science, foreign languages) are included. At the same time the supply of broadcasts that can be taken over from other German broadcasting stations is constantly decreasing.

Thus in the next few years efforts will have to be stepped up for these sections of the programme, if importance is attached not only to quality but also to a supply of programmes that is as varied as possible. Colourfulness and variety in the programme will only be ensured to a justifiable extent through cooperation with serious partners and the multivalent use of the programmes.

Thus the school television department has been endeavouring for years to make new and low-priced productions through cooperation and co-financing jointly with state authorities, with associations which also have to fulfil the stipulations under public law, and with umbrella organizations in such areas as, for example, health education, road safety training, civics, environmental education, and job-orientation. Undertakings of this kind, however, involve the risk of giving particular emphasis to those sections of the programme for which external funds can be made available.

On the other hand, such partnerships make a contribution to easing the financial burden and allowing our own resources to be invested in projects which make a production seem possible even without external resources.

An extremely economical and efficient employment of financial means and production capacity is the second way to help keep school television's heart beating even in lean times.

Yet it no longer suffices to produce only school television broadcasts, as hitherto, inexpensively; the aim is, rather, to use the programmes several times. Here are a few examples:

Road safety training:
Expensively produced spots for the evening programme can be included in a monothematic traffic magazine. It is cut into a previously specified form and interspersed with a special presentation to be used as a school television broadcast.

Educational theory:
Every service broadcast for educators from the series "Meetings of the Parent-Teacher Association", 45 minutes long and transmitted in the evening programme, contains a short play, which, built into the sequences, threads its way through the broadcast. Curriculum-related films which give fresh impulse are extracted from it for programmes on educational theory.

Environmental education:
A quiz-programme for schoolchildren on ecology issues ('Eco-Quiz') – slotted into Sunday afternoon – is built up on films relating to indigenous flora and fauna. The films themselves can also be used in the subject "Biology".

Other programme parts with multiple use are broadcasts which prove to be at least indirectly useful for the lesson and suitable for the school, for example the series "Selbstgedreht – Schüler machen Filme" (Shoot on your own – schoolchildren make films), a chance for active media education, or reports on competitions among pupils' video and drama groups which are used to enliven the lessons in German, art and music education, social studies and handicrafts.

School television in the 90s, anchored as a stipulation under public law, is a means of instruction which is stimulating, varied and provides clear visual images, thus promoting learning with enjoyment. As an easy way to knowledge, it additionally enriches – with imagination and many facets – the programmes transmitted in the afternoon: a point of reference to one's native country, a window on the world broadening horizons for everyone.

Verena Doelker-Tobler

A Collaboration Model to Secure the Future: German-speaking Swiss Television and the Cantonal Conference of Education Directors

I am convinced, and experience proves me right, that the most effective strategy for a successful continuation of educational television programmes as part of public service broadcasting is based on two prerequisites:

- thoroughly prepared and long-standing partner agreements concerning not only the concept but also the organization and financing;
- up-to-date programme offers, i.e., programmes prepared by professionals in the education area as well as in television production.

Therefore, we wish – with three votes from Switzerland[1] – to present the creative process, the functional process and the experience of the Swiss German model of a collaboration between the educational authorities and the (German-speaking) Swiss Television DRS.[2]

The organizational model

The organizational model of German-speaking Swiss Television is a collaboration model between the public broadcasting corporation DRS (German-speaking Swiss Television) and of the EDK[3], i.e. the conference of education directors of German-speaking Switzerland, representing the educational system.

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[1] **Verena Doelker-Tobler**, Head of the Department "Family and Education", reports on the genesis and the terms of agreement between the partners; **Felix Brugger**, Head of the school television division within this Department, sums up conception and experience with the enrichment model that forms the basis of this cooperation; **Werner Frei**, who teaches upper level classes in the Canton of Zürich, gives his view on the Swiss school television model as a subject and level representative in one of the working groups

[2] DRS stands for "(Fernsehen der) Deutschen and der Ratoromanischen Schweiz" and has its headquarters in Zürich.

[3] EDK stands for "Erziehungs-Direktoren Konferenz"

Educational television in German-speaking Switzerland "is produced by an editorial staff inside television and is structurally related to the educational system"; thus it corresponds to the organization model referred to by Kees Schippers as Strategy I.[4]

Genesis

The firm agreement between the two partners is the result of a long-standing negotiation phase with, initially, a free collaboration of approximately 10 years between 1970 and 1980.

The search for forms of solid collaboration between the education authorities and the media began more than 20 years ago in Switzerland, too. An equal representation commission was given the task in the early seventies to "study the possibilities of a collaboration between the mass communication media radio and television on the one hand and the Confederation, the cantons and the interested entities on the other hand".[5]

In 1978, both EDK (conference of education directors) and SRG (German-speaking Swiss Television DRS) advocated the creation of a regional educational television commission; in 1980 the signing took place of an "Agreement between German-speaking Swiss Television DRS and the EDK regional conferences of German-speaking Switzerland for the cooperation in educational television".

It contained the following working method:

" – A permanent project group, in which both partners are present on an equal rights basis, plans those own productions and acquisitions which are possible within the frame of the available financial and production instruments.
 – For every single project a specially organized working group elaborates an outline, a treatment and a screenplay; it stays with the production until its acceptance."

This agreement initially covered a trial period of 4 years. In 1985, a 10-year agreement on the existing and mutually tested basis was entered into, which clearly specified the conceptual, organizational, legal and financial aspects of the cooperation.

The conclusion of this agreement was undoubtedly a milestone in the history of Swiss German educational television. Since then the editorial staff of the School

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[4] Cf. Kees Schippers, this volume, p. 55 – 64.

[5] In: "Zusammenarbeit SRG and Erziehungsdirektoren-Konferenz 1969 – 1980" (internal report, 1980)

Television department (integrated into the main department "Family and Education", which is also responsible for programmes for children, youth and for adult education) produces television programmes for schools in close cooperation with the equal rights project group EDK/SRG.

The EDK/SRG coproduction model

The agreement between German-speaking Swiss Television DRS and the EDK regional conferences of German-speaking Switzerland concerning the collaboration in school television comprises 6 topics:

1. Aim:
   The aim is clearly defined with programme planning, production and programme analysis as well as sales and rentals.
2. Executors:
   Two groups are responsible for the implementation of the agreement: a continuous project group and for the individual projects the specially named working group.
3. Project group:
   This group, consisting of 3 representatives each of the regional conferences and German-speaking Swiss Television DRS, "plans and realizes own productions and acquisitions in accordance with the stipulated financial and production instruments. The idea for the overall offer as well as the themes of the individual own productions are defined each time for one programme year. The project group selects the members of the working groups, examines every project and is responsible for the acceptance viewing."
   A specification document defines working methods, competences and the subordination among the partners to the agreement
4. Working groups:
   The working groups, consisting each of an author, an editor, a director as well as a subject and level representative from the regional conferences, "are named for each individual own production by the project group. Each working group elaborates its programme according to the concept and accompanies the production until the project is accepted together with the project group."
   The working method, competences and subordination to the project group are defined in a specification document.
5. Finances:
   The allotment of financial means (the EDK coproduction contribution as well as the production cost budget of DRS) is defined in detail in this agreement:

The EDK takes over:

- the cost of the collaboration of their representatives to the project group;
- the cost of the subject and level representatives to the working groups;
- the contributions to the additional costs for additional own productions;
- the making and distribution of support material.

The DRS covers:

- the cost for the cooperation of their representatives in the project group;
- the cost for the cooperation of the author, the editor and the director in the working groups;
- the direct production cost;
- the indirect production cost (studio, film, ENG etc.);
- the cost of the media specific training of the subject and level representatives in the working groups.

6. Rental and sale:
   The contract states that "Rental and sale of the programmes made by coproduction are free of rights for schools. When integrating other productions into the educational television offer, rental and sale are determined from case to case by the project group."

With this coproduction agreement the broadcasting of educational television programmes in German-speaking Switzerland has been insured for 10 years.

At that time probably nobody realized how important this decision could become for educational television in Switzerland. No one had the slightest inkling of the media-specific storms of the present.

I dare assert that the rationalization measures adopted by German-speaking Swiss Television DRS between 1990 and 1992 would have done away with educational television had this legal commitment not existed. Whether the public would have agreed to the loss of school television is more difficult to assess.

A "Report from SRG to the Federal Department for Transport and Energy concerning the structural reform of the company and the implementation of the order of performance of SRG" (September 1991) contains therefore the following passage in the chapter "The programme assignment":

> "SRG is committed to producing radio and television programmes which offer through both medias to the whole population living in Switzerland and in their language quality programmes in the main information, entertainment and culture sectors, the educational performance order in the sense of cultural development being contained therein; however, a systematic school and adult education is not part of SRG's direct task. This is the responsibility of the school and education institutions."

This sentence demonstrates clearly: As to the media-related developments in the field of broadcasting corporations in Europe, the safeguarding of educational television programmes is guaranteed only through agreement models which are soundly elaborated and accepted by all the partners.

As far as Kees Schippers' headline "Back to education" is concerned, it would be a misconception should this notion refer to a revival of traditional pedagogic intentions. But an offer of programmes broadcast to schools which ". . . consists of clearly structured, realistic broadcasts in an easily comprehensible language and offering entertainment", as Lothar Humburg puts it[6], proves to be strong and viable. Such programmes reach their "regular public" and are considered at the same time to be attractive offers for interested "gate crashers", e.g. adults wishing to up-date their schooling or parents wishing to participate in the curriculum of their children.

Here we come now to the most important aspect of targeted public relations activities, which Kees Schippers mentions as Strategy V, and which includes analyses of needs, multi-media systems, information campaigns and international projects: Our experience teaches us that public television's direct airing of school television programmes, even if their exploitation by schools takes place more and more through video-libraries, constitutes an important factor for insuring and improving European educational programmes.

The cooperation described above within the frame of the project group EDK/SRG has proven its worth in German-speaking Switzerland: school television has improved its image, its popularity and efficiency during the past few years. The exploitation by Swiss schools is increasing, as Werner Frei reports in the following.

The ideas elaborated within the frame of the project group, e.g. the "enrichment model" described by Felix Brugger, has proven to suit the conditions of this small country, with its limited production budgets for broadcasting and its federalist structures in the school system.

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[6] Cf. Lothar Humburg, this volume p. 71.

Felix Brugger

School Television in German-speaking Switzerland: Intentions, Considerations, Experience

Our school television service sees itself as a clear example of an enrichment programme, meant to be a valuable addition to the school lessons and an aid for the teacher. It is adapted, first and foremost, to the requirements of the school, of the pupils. School television broadcasts are conceived as helpful instructional material which does not replace the teacher but supports him, giving him ideas and suggestions. The success of a programme therefore largely depends on the teacher's pedagogical skill, its use in accordance with methodological and didactic principles, and the available equipment.

Adapted to the modest finances and means of production and personnel, the overall programme takes into consideration above all the 4th to 9th school years in the elementary school. The infant school (1st to 3rd school years) and the secondary schools (vocational school/grammar school) could, it is true, already use a large selection of our programmes, but they are not our primary target group. Our aim is to expand the target groups and also increase the number of broadcasts contributing to the continuing education of teachers and parents.

The Swiss school system is very federalistic in its structure, and each canton has its own syllabuses and its own school model. What is more, we purchase about 60% of our programmes from abroad (mainly in Germany), where there are different syllabuses and types of schools. The effect of this is that our school television programme cannot be tied to any particular syllabus.

We are therefore dependent on the advice and feedback from active school experts. For this purpose, I have at my disposal a staff of 25 teachers – so-called subject and level representatives – who at the same time are available as consultants and authors for our back-up magazine "Achtung Sendung!".[7]

We transmit every broadcast three times in the morning and once in the afternoon (4 pm), on two of these occasions as a block transmission of entire series for recording in the schools. A large number of schools are nowadays equipped with video facilities and keep their own videotheques. Moreover, the school television broadcasts can also be borrowed from the cantonal audio-visual centres. In 1992 the mode of transmission will undergo a change: it will then be possible to receive the school television broadcasts on a service channel every day between 2 and 3.30 pm, each broadcast being transmitted only three times.

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[7] "Achtung Sendung!" (Attention transmission) is the official magazine to accompany both school radio and school television programmes of DRS. It is published 8 times a year by the "Interkantonale Lehrmittelzentrale", and contains programme schedules, introductory information for teachers, tear-out pages with pupils' work sheets, and regular supplementary pages with media education issues.

The school television output comprises about 200 different broadcasts covering the whole range of school subjects. This extends from geography, science, languages, history/politics, social and human studies ("Lebenskunde"), media education, economics, to sport, culture and music.

There are, however, certain activities that in our opinion relate to future developments. Recently we have expanded work on how to present current affairs problems or issues of environmental education in a way that is suitable for school children.

Especially in the case of our own productions, we attach great importance to short introductory films (so-called "Anspielfilme"), which outline a subject in a way that stimulates discussion. For certain subjects, we produce modular units, which can easily be split up during a lesson and whose constituents can be used again in another context.

We publish supporting print material for all our school television broadcasts, which usually consists of a short description of the contents, additional information on the subject, learning objectives, tips on method and didactics, references to relevant literature and, in some cases, working sheets with suggested solutions. The school radio and television magazine "Achtung Sendung!" is much appreciated by the teachers and helps them to adopt methods for using the programmes profitably in the lesson. This is important, because effective ways of using video cassette recorders is still hardly dealt with or not dealt with at all in teachers' training courses.

In conclusion, let me mention an aspect of media policies that bears on our future: broadcasts are interesting for a television station if they are seen by as many viewers as possible and have a high audience rating. This is something that educational and target group programmes cannot achieve, even if they are of an extremely high quality. Such broadcasts are thus tolerated rather than loved by the station directors and have to make do with slots at unfavourable times.

I believe, however, that school television broadcasts as well as those for children and young people are of great value for a broadcasting station. If it neglects this area, it is like a sports club which fails to promote its junior members, and this – as we know – can have devastating effects later on. If we succeed in making our children's school lessons come alive, if we introduce more variety into them by means of attractive and interesting programmes, we are making a valuable contribution to our society.

Werner Frei

School Television as Experienced by a Secondary School Teacher

Preliminary remarks

It was only about fifteen years ago that colour television sets found their way into Swiss schools. In the beginning, nobody thought of using video recorders, which were expensive at that time. The relatively small screens and the poor picture quality of the first colour sets in those days did not allow a whole class to gather in front of the screen.

In the last few years this situation has changed tremendously. The initial scepticism has given way to a realistic assessment, without being replaced by a state of euphoria: it is impossible to imagine our everyday life and in particular that of schoolchildren without television.

The use of school television

School television is now almost entirely used with video recorders in the German-speaking part of Switzerland. This was shown by a survey on which the following remarks are based.[*] The teachers avail themselves of the broadcasts whenever they fit in with the subject of the lesson. The broadcasts desired are as a rule recorded by whoever is in charge of video and placed in the school's own videotheque. An appropriate index is kept up to date, in some cases by computer. Videotheques are not housed at a centre in the community, but in every school. This is made possible by the low price of video cassettes; moreover, the individual wishes of different teachers can best be taken into account in this way.

At present our staff room contains some 200 video cassettes of 180 minutes each, and about 80% of these are school television broadcasts. The remaining videos are from the rest of the television programme.

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[*] Random survey among teachers from all regions and levels, carried out in 1990 (unpublished report, for internal use)

The teachers attach importance to Swiss-made productions or good adaptations of foreign programmes, as they are the most suitable for the pupils with regard to language and mentality. The frequency with which the cassettes in the archives are used varies considerably from teacher to teacher (between 1 and 10 times a month).

There has been a substantial increase in borrowing school television broadcasts from the cantonal school videotheques, which are now better equipped. A good selection results in an increase in demand. The constant improvements in video equipment in the schools is also likely to result in school television being used more widely in the lesson. The novelty of television for the children has undoubtedly worn off somewhat, and this will probably make teachers select school television programmes more critically and carefully.

According to the survey mentioned, the teachers are agreed that television broadcasts at school should only be used in small portions, i.e. in sequences of 10 to 15 minutes, and therefore want short broadcasts for the most part. I find it quite right that our school television programme always sees itself as enrichment. Precisely because the teachers can choose from the wide selection at their own discretion, it is well received by them.

Subjects preferred

School television broadcasts are used in all subjects, whether it be vocational instruction, biology, geography, history, social and human studies, music, ecology, civics, physical education or economics. Broadcasts on media education receive special attention, now that the media play an ever greater part in the day-to-day life of our children and young people. Active media education is also pursued: more and more films are produced in the classroom, by the pupils themselves.

According to our experience, school television is used less frequently when other visual aids are available. This applies in particular to chemistry and physics, where video recordings can only be used to supplement experiments and demonstrations, since the pupils' own activities should never be replaced by the mere "consumption" of videos.

Use of broadcasts and support material in the classrooms

School television is for me as a teacher a valuable aid, like books, films, slides, daylight projectors and other instructional material. The broadcasts can be used as introductory material, additional and background information or for preparing and following up lessons. Pupils can often be more quickly put in the right mood for a subject, or better motivated for an assignment.

The programme magazine "Achtung Sendung!" is very popular with the teachers, as, on the one hand, it gives them a good overview of what school television has to offer and, on the other, provides them with interesting additional information and valuable suggestions for using television in the classroom. The work sheets, which are kept open, also allow the teachers to produce documentation of their own which is tailored to their individual requirements.

In the schools of German-speaking Switzerland educational television has established itself as a valuable teaching vehicle. In future, the school television offer for higher grades (10th to 12th school year, technical and/or vocational schools) shall be expanded. Also planned are various contributions for teachers leading to a sensible use of school television. A rich and attractive programme offer is not sufficient; its correct exploitation should also be our concern.

Pierre Trincal

The 'Centre National de Documentation Pédagogique' and the Future of School Television in France

At the moment, school television in France consists of 78 hours a year of programmes produced by the Centre National de Documentation Pédagogique (CNDP) and broadcast on the FR3 public channel. By the term school television the CNDP understands the programmes that are transmitted over the air, and that are intended explicitly for school classes, their contents being defined in close relation to the school curriculums. This kind of television conforms to the aesthetic standards of all televised programmes, and differs from other types of programme not in its form but in the objective criteria that it tries to meet and the subjects dealt with.

Since it began in 1951, school television in France has been entrusted to a public organisation under the supervision of the Ministry of National Education. Today, the CNDP is the heir to this organisation, which has had different names at different periods (CNDP, IPN, OFRATEME, and since 1976, once again CNDP). Originally intended for the primary levels of education, school television extended its scope in 1963 to include continuing education for adults.

Today the fall in the number of hours devoted to school television has to be noted: 20 hours per week in 1970, 2 hours in 1991. But despite these figures, which could be regarded as a reason for pessimism, indeed for discouragement, the CNDP, convinced of the usefulness of school television, is engaging in an analysis of the obstacles hindering its development. Research has to be carried out into the difficulties and future prospects involved, with regard to the conditions affecting the supply of educational programmes and the state of demand for them.

1. Beginnings of a change: The supply of programmes

Negotiating a partnership with broadcasting companies

During the 60s, developments led to the creation of an organisation responsible for the creation and production of educational programmes that was separate from the ORTF, which then had a broadcasting monopoly. The CNDP very soon found itself in the position of a producer of programmes that had to negotiate with the operating companies responsible for the broadcasting slots.

Until 1990 – with few exceptions – the CNDP was induced to buy space from the channels. The channels saw this situation as a constraint, and the programme planners, reluctant to see programmes on which they had no influence being imposed on them, reduced the reserved slots to the minimum, as their own daily broadcasting time was more and more extended.

As from 1990, the CNDP chose to negotiate on a different basis. It no longer occupied the position of a hirer of broadcasting time but became the channel's partner: as a producer, the CNDP now supplies programmes to the channel; as co-producer, it supplies finance. In turn, the channel transmits the CNDP's programmes, ensuring that they are harmoniously integrated into its programme planning and permitting the CNDP to distribute in the educational system certain of its broadcasts on cassettes. In this way collaboration was established between the FR3 and the CNDP, with regard both to the subjects dealt with in the programmes and to their form.

If the CNDP's programmes are transmitted today on FR3, this is because this public service channel is, with the "La Sept", the channel that displays most openly the intention to develop educational and cultural programmes. The CNDP does not, however, exclude other operating companies.

The fierce competition between the channels to gain audiences and to attract advertising and sponsoring revenue has led to certain excesses, which are being increasingly denounced today. At the present moment, when opinion is moving in favour of quality television, school television should seize this chance by making an effort itself to reserve for television what it is best suited to be supplied by this medium in the classroom.

The production of television programmes broadcast over the air still accounts for the majority of the means allocated by the CNDP to the audio-visual media because at the moment broadcast television is far and away the only means of reaching on a substantial scale the numerous school establishments spread throughout the country, which means about 64,000 primary schools, 11,000 secondary schools and high schools distributed over 551,695 square kilometres.

Mainly catering for nursery and primary schools since 1985, school television in France began extending its scope in 1991 to include secondary school audiences. Today the programme range is very diversified:

- "Badaboks", a magazine with play elements for 3 – 7 year-olds, accompanying the first years of learning;

- "Parole d'école", i.e. programmes for 8 – 11 year-olds on particular topics to be used in teaching geography, history, the sciences and the arts;
- "Parole d'école" programmes for 12 – 15 year-olds that provide teaching material for lessons dealing with social questions, adopting a multi-disciplinary approach, such as the environment, the world of work, education in the media, immigration and integration.

For these three levels a particular effort has been made to stimulate reading and writing. As its name indicates, "Parole d'école" (school word) provides time for expression by the pupils themselves, and can therefore be considered an interactive programme.

School television is conceived with reference to specific courses and teaching programmes. It aims at a defined audience with known characteristics (e.g. age, grade level), and it takes into account progression in learning and allows for the real conditions of the teaching situation in class (e.g. the presence of the teacher as an intermediary, the length of lessons). It is produced with the help of teachers, experts and audio-visual professionals, each supplying his own skills, which is a guarantee of quality for form and content.

Nevertheless, the form chosen for these programmes ought to be consistent with the choice of medium: the content of school television broadcasts must be presented "as a show", but there is no question of making concessions by lapsing into facile and fashionable solutions at the expense of a rigorous approach.

The CNDP is not, however, neglecting the opportunities offered by cable, satellite and video cassettes, which appear particularly well-suited to serving as a vehicle for programmes with specialized, didactic contents.

Better exploitation of support media

The new technologies are in the process of modifying the audio-visual landscape, and broadcast television can no longer respond to the total amount of needs for educational audio-visual media. It would be advisable to structure the supply of programmes with regard to the specific nature and qualities of all the aids for distribution that are available:

- broadcast television capable of reaching a wide audience will remain the media best suited to transmitting programmes that create awareness and motivation;
- cable and cassettes (and soon discs) are well-suited to supplying specialised audiences with didactic programmes intended for the acquisition of "in-depth" knowledge.

In 1987, the system Éducâble was set up, a bank of more than 550 educational programmes and films linked to a telematics service. It operates today in 16 locations, in spite of the difficulties of establishing cable television in France, and permits schools that are cabled to choose and programme themselves the films to be transmitted in accordance with their needs and at any time they want. At a local level, the service is accompanied by educational guidance provided by the regional educational documentation centres.

In the same spirit, the conception and production of educational programme series is under way that provide support and assistance for the personal work of the pupil. They will be distributed in the form of video cassettes. Finally, a project is being studied involving a night distribution service of television programmes to training centres.

Relieving broadcast television of those tasks for which it was not conceived will rationalise the supply of programmes and favour its development, since this supply will be no longer limited by the availability of programme slots and by the constraints caused by the schedule of the general programme. School television is thus becoming only one of the constituents of a group of programmes making up audio-visual educational media.

The development strategy pursued by the CNDP as a producer and distributor of educational programmes lies within this process of evolution. If the diversification of the means of distribution removes one of the obstacles to the development of the supply of educational products, the question remains how it is to be financed.

In search of financing

The financing of school television is dependent on the budgetary funds made available by the CNDP. An important part of its resources – more than 50% – comes from state subsidies. In the last few years, budgetary constraints have been imposed on both the CNDP and on all public organisations and establishments. Moreover, the organisation's own resources, although being developed, are still limited. Until recently, the spirit of public service seemed incompatible with seeking profitability. Today, the modernisation of the public service permits new economic criteria to be introduced that are nearer to those of private enterprises in the choices of production.

The CNDP is seeking to increase its resources by directing part of its activities towards new markets: making productions profitable through sales on the secondary market (repeats, transmissions over cable), and through the sale of video cassettes to both school establishments and households on outside markets.

Nevertheless, if the CNDP has the worry of increasing its financing capacity to cover its own allotted tasks, real possibilities are limited by the fact that the market for educational audio-visual products is uncertain: the channels buy few products, the secondary market remains embryonic, and the market for training video cassettes still has to be developed. The video cassette is still mainly the medium of works of fiction: it has only just begun to establish itself in the documentary and domestic services sector (health, gardening, cooking, etc.).

Like all audio-visual producers today, the CNDP is also seeking to share costs with other partners. At the national level, coproduction is becoming necessary more and more frequently in the setting up of projects, while at the international level some recent operations show that it is possible to bring together producers pursuing the same aims. The series "Panoramic" produced on the initiative of the CNDP and the Agency for Instructional Technology is one example.[1]

It is essential to harmonise conditions so that the offer of audio-visual educational programmes will reach a significant size. Inadequate supply prevents the emergence of demand. Below a critical threshold, the range of programmes on offer does not present the diversity required to meet the expectations of a heterogeneous potential public with regard to diversity in teaching levels, in subjects, in teaching approaches, etc. The expansion of supply determines to a large extent the growth of demand.

2. The demand for programmes: Expressed needs

Demand to be released

However far back one goes into the history of school television, one always finds praise for its merits as a teaching tool and criticism of the reluctance of the teaching world to make use of it.

Beyond the conflicts – now largely a thing of the past – sometimes evoked between an "image culture", that of television, and a "written culture", that of the school, and beyond the fears that have now disappeared of the possibility of television replacing teachers, there are objective reasons to explain the delay in the development of television in the classroom.

The direct reception of programmes transmitted over the air (and, to a large extent still, by cable) represents a major constraint. If primary school teachers enjoy sufficient freedom to organise the timetable of their classes to take into account broadcasting schedules, the same does not apply to teachers in secondary or grammar schools. The employment of a video recorder, which allows deferred use of television programmes, and the viewing of hired or purchased cassettes at the most favourable moment, introduces greater flexibility.

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[1] Cf. Michèle Cohen's article in this volume, pp. 256 – 259.

Nevertheless, the teacher still has to accept a lack of equipment; the stock is growing but it is still far from having achieved the optimum level of one TV receiver and one video recorder per classroom. Moreover, new difficulties arise in connection with managing the school's video library (recording, cataloguing, organising lending, etc.)

Finally, the lack of training among teachers in the use of audio-visual media in class is obvious. The different training schemes in this field have emphasised above all the production of images by teachers and their pupils, rather than on making use of existing images for teaching purposes. Integrating audio-visual media into a teaching process presupposes – in addition to the teacher knowing how to operate the equipment – knowledge of the language of images and its contribution to the teaching of the subjects involved.

Structuring a class sequence that uses audio-visual media requires the teacher to be clear about the function that the media are going to perform: functions such as motivating and stimulating questions about films that are meant to sensitize and raise issues, or the acquisition of knowledge or of methods for the use of educational films.

Demand to be accompanied

In fact, an important but very diverse level of potential demand does exist. The needs of teachers in primary schools differ from those of secondary school teachers, and each subject has its own requirements. To allow this diverse demand to express itself, the CNDP thinks that today teachers must be helped to exploit to the full the potential of the tools and products available to them.

This is what is meant by the new task of educational engineering assigned to the CNDP. The integration of audio-visual media into teaching cannot be decreed from above; it still has to be accompanied by assistance. This takes on concrete form in help provided by the CNDP to school establishments in their choice of equipment and to teachers in gaining access to the programmes themselves, whether they are provided by school television or are programmes for the general public.

In January 1992, for example,the CNDP is to issue "Telescope", a new publication giving a selection and an analysis of television programmes of interest for use in class. This publication aims both to encourage teachers to make use of television programmes as classroom aids and to train them to understand what television is about, its language and production methods. The CNDP is also beginning to distribute some of its programmes on video cassettes with accompanying educational material as back-up.

Demand to be enlarged

Demand is beginning to emerge outside the educational system. This is individual demand displayed by households or the institutional demand of local communities and community networks that are formulating new needs: extra lessons for pupils and the updating of knowledge needed by adults undergoing training require tools to assist independent individual work. This kind of demand can be met by series on cassettes or by cable programmes. Finally, a certain number of major national priorities, such as the encouragement of reading, hygiene and health, integration of immigrants, require television programmes that provide information for the general public. The obligations imposed on the broadcasting companies also include the transmission of such programmes.

As far as the development of demand for educational programmes is concerned, the outlook is encouraging. It is up to the CNDP to put itself in a position to seize the opportunities and define a suitable strategy.

In France, while the general audio-visual industry has just undergone an upheaval and a process of profound destabilisation, the educational audio-visual sector itself seems to have just emerged from an identity crisis. It has emerged renewed, reinforced in its allotted tasks, but still fragile. It will remain so unless a strong political will shows itself.

Christian Raynaud

In Defence of "Knowledge Screen" – In Favour of School Television!

In these times when the audiovisual scenery is changing, the public television networks are trying to catch their second breath. Their hearts are caught between the dictatorship of programme ratings, commercial temptation, the sirens of advertising and pretensions to being considered as a fourth power.

In this maelstrom, the desire to produce school television seems as anachronistic for modern decision-makers and other consultants as working in one's garden in the manner of Jean-Jacques Rousseau.

Having been called to work in this section somewhat by chance, I have acquired the taste and am now proud of working in it: we are teaching the biggest "class" in the country!

However, as our colleague John Radcliffe (BBC) puts it, "a school television producer needs to have the stamina of an ox, the persuasiveness of a diplomat, and the single-mindedness of a fanatic."[1]

The aims

Our broadcasts deal with the subjects of the official school curriculum. They complement it and present what is beyond the resources of the schools. That's "television"!

The specific quality of the school television is to be neither a vaguely educational magazine for adults nor a company film generously offered to the media and produced by Shell or Renault. Nor is it a programme embodying the personal view of a TV "reporter-journalist".

In contrast to cultural programmes for the general public, here the language is specially adapted to the level of comprehension of young people so that it is clearly understood, with regard to text, connotations, and pace.

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[1] Cf. John Radcliffe: The new role of the producer/director of school television programmes. In: 25th International EBU Seminar on School Television. Geneva: EBU 1987; p. 9 (Quoted from a questionnaire response).

Nevertheless, the aesthetic values that we are trying to apply to these programmes are intended to attract the general public – which is free to make its own choice – in the same way as the children of all ages and the teachers of all levels who are the original target groups for our programmes.

The message is not subject to any pressure from commercial partners. The choice of subjects is discussed in a committee of educationists, that is to say, together with school inspectors and teachers of all levels, on the one hand, and television professionals, on the other. This is a typically European conception – which the Americans are beginning to want to copy.

School television takes as its model official teaching curriculums and acts as an audiovisual complement to school courses. It does not replace teaching, it assists it, enriches it, illustrates what is said. The notes for the teacher (Fiches pédagogiques) published by our services complete the broadcast and guide the users in preparing and extending what is presented visually. "Knowledge Screen" is for documentaries what the ciné clubs are for the cinema: it tries to convey to the pupils a kind of competency in understanding the visual language used to describe reality.

Nevertheless, if we have the ambition to produce something different from the databanks in which the audiovisual programme would only be a didactic vehicle we must be "at least slightly ahead of the tired, generally conservative teachers".[2]

According to the Petit Larousse dictionary, the French adjective "scolaire" has two meanings, which may be translated as:

1. relating to the school and to teaching;
2. (pejorative): acquired from books, unoriginal.

If it can be said that we are – voluntarily – obliged to accept the first definition, our concern to give the message an attractive form makes us reject the second.

It is working together with the teaching world that gives rise to all the problems concerned in establishing the scenario. While programme producers generally work together with journalists, columnists or professional scenarists, those who produce "Knowledge Screen" are confronted by real specialists on a certain subject – this is one of the rewards of this job – who, however, are only little or not at all versed in the audiovisual approach or who sometimes misconceive the "feasibility" of their projects.

It is self-evident that committees of educationists decide the subjects that are to be dealt with; but once these subjects have been chosen, we should have the freedom to explore the teaching world in search of the best specialists and the most effective means (the obligatory "publications" of university teachers are perhaps a good basis for work).

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[2] Hans Wentholt: The portrayal of current events in school television programmes. In: 25th International EBU Seminar on School Television. Geneva: EBU 1987; p. 29.

In this framework, the producer of school television programmes starts by acting as the co-scenarist; he must understand the subject and imagine – in the real sense of the word – how it can be transferred to the screen while reconciling didactic aims, adapted language and attraction for the viewer. (I believe especially in the effectiveness of dramatization in school television; I will say more about this later).

To **write** and **produce** in order to **please** and **instruct**, in the case of such productions as "The Conservation of the Quantity of Movement" or "The Jobs that Create Fashion" or "Images of Proust" – here lies the entire challenge of school television: a thrilling challenge!

Furthermore, education in the television media – a form of communication that must be understood as a language, with its own vocabulary, grammar etc – prepares our televiewers of tomorrow!

Programme length

The international modules being 13, 26, and 52 mins. in length, it would be futile to make oneself conspicuous by not accepting them, with the risk of being cut off from markets, exchange or sale.

Nevertheless, the length predetermined for a subject should correspond to what must be said about it and not according to an old principle of age-level or teaching standard as we, in Belgium, often do.

Distribution

To a large extent, teachers make deferred use of our programmes by employing videocassettes. While one class follows a programme broadcast live, a VCR records it for the school's media library to be used in other classes, at convenient times.

Programming school television broadcasts in the afternoons also allows the general public to be interested in them, which means that school television also contributes to permanent education. This fact has been established, in spite of the absence of specific audience research, by letters and telephone calls. The unemployed as well as the self-employed or members of the liberal professions, children at home, people in hospitals or in certain institutions and trades have shown interest in school broadcasts as well.

Better promotion of the school television programme output would certainly increase this audience: let us confess that the announcements in the press are a minimum below which it is difficult to go. In most cases only the programme titles are mentioned, anyhow.

If the system of re-running broadcasts has to be reviewed, mainly by removing from the schedule programmes that are too old, it must, to correspond to the initial specifications imposed on it, remain true to its principle: pupils only view programmes of differing levels according to their age; only a regular rotation of programmes will allow all children to benefit completely from it.

At a time when more emphasis is again being placed on educational aspects and cultural programmes on networks all over the world, it would be rather a paradox for us to slow down production. Let us remember that our programmes, which are often of an educational or cultural type attracting general interest (history, literature, documentaries etc.) have also a regular place in the peak viewing times on some channels in Belgium, e.g. on RTBF1, Télé21, or TV5.

It is the quality of this kind of programmes that may even open up foreign markets for the producing organization, e.g. in form of educational assistance, by programme exchange or on a commercial basis, in a market niche that is continually growing.

Teaching in future will be, more than ever, audiovisual. In Belgium, we have a "Mediatheque of the French Community", which is an organism aiming at lending cassettes to the public. It may be useful to recall that 8 out of 10 cassettes asked from this "Mediatheque" are school programmes. We can supply these broadcasts on condition that they are not subject to copyright, and we therefore pay attention to this point in preparing our programmes (this would obviously not be the case for programmes acquired from abroad). If any enrichment of the "Mediatheque's" educational catalogue is to take place, this implies that our productions should continue.

Dramatization

Dramatization involves turning something real into something fictional. The scenario, the dialogue, the possible interpreters, the scenery and the sound, in short, the entire "staging" serve to create the "pedagogic fiction'. The narration conveys the ideas, forming the opposite of a simple entertaining cover placed on top of a masterly speech. Dramatization is a process of giving form to a message, the contents of which remain of prime importance but which try not to resemble too much the teacher-like kind of school television that is synonymous with boredom and bad memories.

How many fundamental ideas have we not learnt through cinema films? One can note a tendency in the public to follow information concerning the real world as if it formed a kind of entertainment serial: man likes to be told **stories**.

Dramatization can be of use in particular for programmes in which the subject matter being taught is not "concrete". In fact, while an experiment in physics is often sufficient in itself, – depending on how much its representation can be effected in the optimum conditions of development and result, above all thanks to editing – , the explanation of more abstract concepts demands other ideas to provide the right form, if the result is to be something better than a book!

Conclusion

On the initiative of the "King Baudouin Foundation", a seminar held on 30th January 1991 brought together all those in the French community in Belgium who are interested in youth education on and by the audiovisual media. Without wishing in this place to discuss the long contributions made on this rewarding day, I wish to note the points that are directly concerned with our present activities in school television.

Numerous exchanges of views with the school inspectors and teachers taking part allowed me to confirm opinions I have been acquiring for some years:

- They would like to have **new programmes** to enlarge their own personal media library, that of the school and that of the children.
- **On-air broadcasting** alone allows copies to be made in large numbers; it confers on the message a kind of guaranteed value (which the video cassettes do not seem to have in themselves!). Then, however, the cassettes should be **put on sale for a larger public.**
- The "old" broadcasts should be withdrawn from the programme schedule and be renewed, especially in subjects such as geography or computer science that quickly become outdated.
- The length of the broadcasts must be adapted to the subjects and not determined a priori according to the subject being taught or the age-level. The programmes should have a modular structure, so that any part can be revised easily thanks to the inclusion of reference points.
  (I am thinking of fade-outs into darkness like those that allow advertising to be inserted in American products . . . However, a coherence and a progression of the whole must be ensured for certain pedagogic situations, as well as out of regard for the public of "non-school" televiewers, who continue to exist in considerable numbers.)

- They are asking for subjects to help them with the description of the audiovisual language: "More audiovisual products are needed on the subject of the audiovisual approach".
  (For example, since the use of film extracts is complicated and laborious, we might suggest that the same scene – an identical game by the actor or actors – be shot in several ways from the sole point of view of the camera, in order to make explicit the forms of emotional manipulation exploited by dramaturgy.)

Is public service broadcasting going to abandon the responsibility of providing the teaching world with audiovisual assistance to the private sector, with all the contingencies and submissions that this implies? And besides, it is no longer at all certain that the private sector is still interested in this field, after the withdrawals that have already taken place.

Would this be the abandonment pure and simple of the kind of instructional television that is desired? We must not confuse "educational" and "school" television and conclude – erroneously – from this that the latter should be eliminated.

As in Germany and Britain, France broadcasts on FR3 its "Continentales" programmes conceived to "constitute an educational videotheque". We have this videotheque on Saturday mornings; its subjects are the major themes of contemporary society. But history, physics, or any didactic and systematic analysis of knowledge – all this is either part of the "school" domain of television programmes, or it will disappear. The choice is to be made.

At the beginning I said that the school television is a country's largest school class: is it absolutely necessary to link its existence to the enthusiastic endorsement of young people by plebiscite? However, do all children adore going to school? Luckily, schools are not run on the basis of opinion polls!

Submitting to the law of least effort is a perversion of democracy. I encourage those responsible for this way of disseminating knowledge to reflect well before putting on the brake: it is a decision that will make their names go down in history – like that of Attila!

I have been asked to comment on Kees Schippers' thesis or strategies. Summarizing what has been said above, it seems quite clear where I personally would put emphasis or establish my priorities for the decade to come.

Reading Kees Schippers

One first statement has to be made: all those concerned with School Television seem to have the same problems and to be thinking of more or less the same solutions!

At the RTBF, our broadcasting slot is going to be reduced from 5 to 2 days a week, while Kees Schippers says: "If broadcasting time is too short, it is impossible for all those involved in teaching to be interested in school television!"

There evidently seems to be a dichotomy between general speeches on cultural life, education, and the decision and real initiatives of the political world. But the saddest thing at the RTBF is that the threats originate from inside our organization itself, which is part of the public television service!

Among the strategies proposed by my Dutch colleague, at least the first attracts our absolute support: Relations must remain close between the organizations responsible for production and for teaching. Let the advertisers fantasise about audience ratings but let it be enough for us to know whether what we are doing corresponds – effectively – to what is wanted by the teaching world to enhance its courses.

As a consequence of the slight importance enjoyed by the department of school television in a large corporation, and because the programmes produced there do little to enhance the standing of those who produce them, it might be thought that this is a place where you will find those undergoing punishment, the lazy, the less imaginative. Does a teacher of physics say that he is a failed engineer? The producer of school television programmes is in this job because of his own convictions; he is not a failed genius of the seventh art or international reporting.

It seems that to think of providing accompanying programme material is virtually a dream... Once again, the RTBF has been doing so under the pressure of economies.

Finally, school television must obviously be promoted more vigorously. A large-scale survey of those involved in teaching would be extremely useful. But perhaps this evaluation should reach below the level of the decision-makers, lower even than the conference of school inspectors, to question the teachers in the field, the humblest village teachers (who are doubtlessly the most faithful viewers of our programmes, because they are the least provided with teaching material in class), the pupils themselves, and – why not? – their parents.

Don't let us allow this "return to education" that has been praised so much to become a fashionable slogan, which will be quickly forgotten.

Andor Nagy

A Turning Point of Educational Policy in Hungary – Which Task for School Television?

The world we live in

In this era of political upheaval in Eastern Europe much discussion is centred on the need to renew public education. In Hungary the National Institute of Educational Research, the Ministry of Culture and Public Education, the National Institute of Public Education and the research departments of various university faculties are seeking fresh approaches to public educational policy. Unfortunately, our researchers continue to compare conditions in Hungary with those in the most developed countries, which only serves to aggravate the already existing crisis.

There is no shortage of clichés about the transformation of the Hungarian economy; much less is said about cultural shortcomings. Without improving society's cultural level, without re-establishing the status of "intellectuals", there is no hope of significant positive change.

We agree with Elemér Kelemen, who says "the change of political system requires a break-away from denigrating the non-productive sector of society, as well as from the state monopoly of education, and from its ideological stranglehold on the aims and methods of institutional education. The critical situation of Hungarian public education and its cumulative shortcomings more or less threaten its ability to function. Its inner moral and professional resources are on the way to being exhausted. To be able to resolve the crisis comprehensive and real reforms are needed."

Deficiencies in our education system are to be found at various levels. The primary school system is a cause of much concern; our vocational training has failed to enhance general cultural values; further training for skilled workers has ended in a cul-de-sac; the proportion of graduates with a higher education degree rapidly needs changing. The problems of foreign language teaching were highlighted when Russian ceased to be compulsory, an opportunity we cannot yet capitalise on, as there is a lack of competent teaching personnel.

So little progress has been achieved that some researchers have abandoned any wider concept of school education. A common attitude is that the school should at least fulfil its basic mission: conveying and developing basic knowledge and skills, motivating pupils and providing them with the tools for further education.

Most people believe the school cannot undertake more tasks, that the family must now also assume responsibility for a child's education.

Previously, a majority of mothers were in "employment"; today's situation of unemployment means that mothers must be content with only a part-time job, that they have more time to look after their children. Fathers are of course obliged to try to earn a salary sufficient to maintain the whole family.

The contribution of educational television to the process of reform

Hungarian School TV, founded in 1961, provided new stimuli and teaching models for educators. The "screen teacher" was gradually accepted by pupils in Hungary. In the mid-60s the fact that the questions of Budapest teachers were being answered by children in Eger, Nyiregyhaza, Sopron and Pécs seemed to be a true miracle.

At the Ministry of Education school television was seen as contributing greatly to the progress of educational development: it prompted new approaches and pedagogical experiments in schools, the ensuing exchange of ideas between providers and users was fruitful. Programme editors and directors integrated valuable advice from both practising teachers and from school TV researchers. "Contact schools" were used to ascertain how well their films could be integrated into the teaching process. Primary and secondary school teachers clearly benefited from the discussion subsequent to their consciously using school TV programmes.

Since 1966 international seminars organised every two years by HST in co-operation with the Faculty of Education of the Eger Teacher Training College have allowed our own programmes to be reviewed by experts from abroad. They have confirmed our belief in the opportunities new media have to offer, contributing to the renewal of curricula and methodology.

National educational contests organised by School Television and competitions in different subjects can be very well integrated into the teaching process. The broadcast of preparatory courses for university entrance and, at a later date, of the proper answers to the written tests have had similar success.

In the 1980s the programmes in various school subjects underwent a transformation in their content. A wider approach to school learning was embarked upon, particularly by Channel Three, a good example of interesting and exciting school broadcasting.

Foreign language programmes are popular on Hungarian Television: children wanting to learn American English watch "Sesame Street", German learners follow the series "Spielt mit!". Former teachers of Russian, now in the process of being re-trained naturally benefit from this foreign language television service.

School TV did much to enhance parents' awareness of pedagogical, psychological and educational issues. "Parents and educators face-to-face" brought parents and educators face-to-face to discuss their mutual concerns with an aim to finding possible solutions. It was followed by another series "Family Circle", broadcast at peak time. (Students attending the Educational Studies course carried out research into the educational benefit of this series.) Particularly class tutors, obliged to keep regularly in touch with parents, appreciated this series.

On recognising the growing interest in this series we launched "Family Circle" Clubs across the country. During Club sessions parents were invited to voice their opinions on the topic at issue. Club leaders receive assistance from School Television: they are sent a summary and a script of each programme in advance. An additional series, "Family Sunday", shows families with positive life-styles, i.e. family models that can be integrated into the viewers' lives.

A main objective of Hungarian School TV has always been to promote the further training of teachers, e.g. the series, "How do I teach with Television?", aimed at instructing teachers how to make effective use of the medium.

Today programme time devoted to school television is restricted. The institution has been transformed in its function as well as name. Iskolatelevisió Studium (School TV for Learning) now concentrates on the use of television for disseminating knowledge to specific target audiences. Making educational work more effective remains the principal aim.

New policy for public education and teacher training

Each significant change in educational policy and school reform must be accompanied by changes in teacher training. Earlier failures can partly be explained by the fact that this principle was not taken into consideration by those in charge.

The fundamental alteration in Ministry of Education policy will be to switch the present 8 + 4 structure to a 4 + 8 structure, a main feature of Hungarian public education in the early 1940s. The foundation period of the first four years at primary school will remain basically unchanged. The present "upper school" of the primary education period will become the lower four classes of secondary school. Hence much teacher training must be upgraded to university level. This transformation of secondary school education from four to eight classes will be a substantial turn-round. Evidently, the quality and quantity of curriculum material will also be fundamentally changed.

The National Core Curriculum focuses on the most important subject areas of knowledge, allowing teachers to use their judgement in the context of local opportunities. We fully agree with the underlying principle of the new curriculum of "nurturing confidence in social, environmental and technical surroundings, as well as in the world of arts, and developing the ability to change the environment by active participation and to gain creative and co-operative attitudes."

The new-style curriculum will be realised with the help of so-called 'alternative' programmes or textbooks, which means that both teachers in training and in practice must become familiar with the different didactic methods they offer.

According to National Curriculum a unified examination and evaluation system will be laid down, thus affording a more objective evaluation of pupils' achievement – the so-called "competency" exam, a convertible final exam also entitling students to enter higher education.

Previous rather rigid curriculum requirements – which always hurried the teachers, urged them to teach, but never allowed them to complete the learning process – will be exchanged for a new, far more objective examination system. In the new system external examiners will be used, as opposed to the subject teachers. The new concept stresses the importance of the acquisition of knowledge for achievement and developing skills, i.e. "output" is far more important than "input".

In this concept the development of the pupil's whole personality plays an important part. We welcome the idea that intellectual education has been placed on the same level as affective and moral education, and that the requirement of manual skills is to be developed.

In contrast to the recent past, the school's educational work is to be governed by the principle of pluralism – both in its political and wider world context emphasising tolerance, empathy etc. Religious education, a subject for which there was obviously no provision, will also have its place on the timetable. Religious and private educational establishments will now create a measure of "competition" and become the source of many changes.

Reform policy takes comprehensive conceptual and organisational innovation in teacher training for granted, as it does the realisation of in-service education in liaison with the colleges. The founder of the policy, Elemér Kelemen, thinks that "to achieve the conceptual and organisational reform of teacher training, a flexible organisation of regional pedagogical institutions can be built up. They would be responsible for training and in-service education, research and development, professional supervision and advice, and for informational tasks – gradually undertaking the process of integrating the pedagogical institutes in each of the various counties."

Opportunities and tasks for educational television in the new policy

We mentioned earlier that Hungarian School Television is the product of the 1960 reform. Today, thanks to video, its use does not have to be adjusted to the school timetable. The teacher can integrate a programme or a part of it on the spot, wherever and whenever deemed appropriate. The pictures can be stopped; a detail can be repeated. All those possibilities teachers perhaps once dreamt about are today readily available.

Using educational television we can establish a national programme of distance education like in other developed countries. "Everybody's School", an idea which failed in our country, could be re-introduced under more favourable circumstances. It could serve foreign language learners, convey information technology, or significantly raise the number of people completing higher education. A distance education scheme would provide access to adult education and retraining.

Educational television has always served to solve problems which arise where there is a disadvantaged background, since everyone can gain access to the knowledge provided, its programmes reaching the tiniest village.

Educational TV has also traditionally encouraged other talents by offering a wide variety of programmes – from quiz programmes to sport competitions, from amateur artistic groups to programmes on our most outstanding artists.

Teachers' in-service education could also profit from educational TV. The best experts from home and particularly abroad can appear on the screen as further educators. Television could also help us to become familiar with educational methods practised in other parts of the world. In Hungary we hear much talk about the "Gordon Test". Psychologists regard the book published in America as an invaluable reference work: fifteen years transpired before it was translated into Hungarian. With the help of educational television such professionals could receive information on similar useful methods.

Our experience, based on almost three decades of research into educational TV, proves that television has become an almost indispensable medium, even though well-prepared and regular use is relatively seldom.

According to Ferenc Glantz, our former Minister of Education, " . . . education must be the linchpin of cultural politics . . . because in modern societies education is the greatest power in forming and activating our sense of community, it is the forum in which teaching is organised and knowledge passed on, it is the formulator of the ideals that unite society. That is why in the new framework for cultural policy we have sought to re-examine the whole of our educational system, and that is why we wish to win for education a financially and morally pre-eminent position in Hungarian political thinking."

No-one would deny the rightness of this conception. Now it is time for us to turn it into reality. It must equally be the endeavour of the medium with the greatest popular impact, educational television.

School television strategies and the future of Hungarian School Television

After the change of regime it sounds an attractive prospect to belong to the European Community. Several policies, plans and strategies are now being directed at this integration. State education and higher education are both in the process of transformation. We are striving to introduce a new final examination system acceptable in other European countries, as well as to award university degrees acceptable in other countries, too. In the future our school television may be faced with great responsibilities; at present it is in a difficult situation owing to the transformation of the whole broadcasting system.

Every second year I have been able to meet at the Eger International School Television Seminar colleagues from the Netherlands and became acquainted with their work. Kees Schippers' review on the question of contentment and finance is most interesting.

In Hungary, I believe, it would be unthinkable to charge schools a fee for using school television. Of course, if such a fee were paid into the budgets of our self-governing regions', the future would be very propitious.

The topic of the opening lecture of the 27th Basel Seminar was very interesting. However, is it really the future of school television that there must be a return to schools? Following up this point, I would like to give a very short account of the past quarter century of Hungarian School Television and about its change in function.

Among the aims of our school television founded in 1961 was the democratisation of education and the transmission of teaching material of equal quality to each region of the country. On the screen first-class teachers applied their craft, employing the most modern didactic methods.

At the very beginning a "filmed lesson" was characteristic. Then focal points of curriculum material were recorded in twenty to twenty-five minutes, thus taking into account the school timetable. Timetable planners took into consideration school TV programme schedules posted to them in September. Later on programmes were made to supplement mainly the curriculum material of primary schools (age 6 – 14).

For secondary schools mainly foreign-language lessons (German, English, Russian), quizzes and programmes preparing for university entrance were broadcast.

Hungarian School TV also took part in educating parents, in developing their awareness of pedagogy, psychology and educational sociology, with its popular programmes ("Parents and educators face-to-face", "Family Circle" and "Family Sunday"). The series "Family Circle" enjoyed such popularity that a club movement was organised in our country – "Family Circle" Clubs. Some of the programmes were discussed together by parents and teachers.

Recognising the spread in the use of video in Hungary, school TV launched its series called "Attention Video Users!", which gave video users practical instructions and tips.

Our school television also made an attempt with other media to introduce distance education. But the series "Everybody's School" unfortunately did not fulfil the hopes attached to it.

The personnel changes following the change of regime, and the introduction of the commissioning editor system put an end to school television as an independent department. At the moment the viewer can see only one comprehensive educational programme series called "Channel Three". Regular financial support for school education has been stopped; there are no programmes to help family education, and we are waiting curiously to see what the future of the programme series made for teachers will be.

School television in our country has never been so important as at the present moment. The aim and the content of our education has been changed, the teaching material of several subjects has been modified.

Our public education system is going to face an unprecedented change; central management will be replaced by an autonomous body. There will be a new national curriculum and a new examination system. All this will mean radical changes in methodology and teaching material. School television could help greatly to bring them about. An old dream is coming true: video and computer can gradually be used alongside school TV programmes.

I would agree with Kees Schippers that the visual image is of extreme significance, since a great many students are visually oriented. And yet the key figure in the classroom remains the teacher expounding at the front!

In the long term within the European Community there will also be some division of labour between the various school television organisations. This would make the programmes adaptable, production costs would be significantly reduced; a uniform high level of European education will emerge.

The Eger International Seminars and the 27th EBU Seminar in Basel have shown that in the field of educational television we can learn a lot from each other, that we can mutually benefit from a greater commitment to co-operation.

Chapter 3:
School Television and the Teacher

Josephine Langham Brown

Teachers, Television and Research: Historical Dimensions of a Relationship[1]

In 1967 the Independent Television Authority, the forerunner of the Independent Broadcasting Authority (IBA), launched an innovative and imaginative educational experiment: the Schoolteacher Fellowship Scheme. The aim was simple: to promote among British schoolteachers increased knowledge and awareness of educational television.

When the Fellowships began, educational television had existed for a decade. Both the BBC and the Independent Companies were producing a wide range of programmes for schools and many primary and secondary schools had acquired receiving sets. Yet the relationship between teachers and broadcasters was not altogether an easy one. Many teachers still disliked the idea of television in the classroom and they were sceptical and suspicious of the motives of those broadcasters and educators who promoted it.

The first regular educational television service in the British Commonwealth had been broadcast in London by a commercial company, Associated Rediffusion, in the afternoon of May 13th 1957. When the announcement of this initiative hit the headlines in December 1956 it generated widespread negative comment in the press and in educational circles. If educational programming had any place on the nation's screens then only the BBC, with its long experience of educational radio and its great history of responsible broadcasting, could really be trusted to do the job properly.

The hostility of many teachers and educationalists towards the "pretensions" of commercial television was a residue of the bitter and intense debate about broadcasting which had taken place in the first part of the 1950s prior to the passage of the Broadcasting Act in July 1954. The educational establishment had not favoured the ending of the BBC's monopoly of broadcasting and had been opposed to the introduction of commercial television. Many in the teaching profession harboured the strong conviction that television was intellectually and spiritually corrupting.

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[1] Jo Langham Brown's contribution is based on Chapter 6 "Television in Schools" of her book on background and history of the IBA's educational research fellowship scheme that covered the years 1967 to 1984.
(Josephine Langham: Teachers and Television. The IBA Educational Fellowship Scheme. London: Libbey 1990; 328 p.)

Television could just barely be tolerated in its BBC guise but the thought of commercial television with "American-type" advertising was simply anathema. Educational television, when not regarded as simply a total contradiction in terms, was dismissed as a gimmick, an expensive toy, which had no place in the classrooms of the nation.

It was in helping to break down this antipathy towards television that the Schoolteacher Fellowship Scheme was to play its most important role in the early years. By 1967 there were teachers who had begun to exploit school television and be aware of its potential. Through their personal experiences with using television in the classroom some teachers had become enthused about the educational opportunities which television presented. They were interested in exploiting its possibilities as a teaching aid but they found that there was very little guidance available to help them. The Fellowship Scheme was designed to provide some solution to this, to take advantage of the new mood in some teachers and help them exploit educational television to the mutual advantage of the broadcasting organizations and the teaching profession.

There could scarcely have been a better time for such an experimental scheme to be launched. 1967 was a time when the political will and the economic climate were beginning to favour educational experiment. Britain was in an "upbeat" mood and people were more open to new ideas in educational research. Technology with all its appurtenances was, for a short time, in high political favour. "Television in the Classroom" was an idea which seemed at last to have found its time.

Between 1967 and 1984, when the Fellowship Scheme as such was discontinued, more than seventy reports were produced. The range of subject matter touched on the main educational broadcasting of the day: television in the primary school, media studies, community education, adult education, social action broadcasting, special education, science teaching on television, the pre-school child on television, among many others.

Perhaps the most significant areas of research, however, was the study of the use of television in the classroom. There were six Fellowships in this area, all of which made a significant contribution to the way educational programmes were produced in the commercial sector. Before discussing these Fellowships in more detail, however, it is important to examine briefly the impact of the American programme "Sesame Street" on research into educational broadcasting.

The influence of "Sesame Street"

During the 1970s educational television throughout the world was influenced by the example of "Sesame Street". In Britain, many educational broadcasters and decision makers had a distinctly ambiguous reaction to the programme but what could not be denied was that from its inception, through production to post-programme evaluation, there had been a close and successful partnership between researchers, educators, psychologists and broadcasters.

Although many people pointed out that "Sesame Street" was a substitute for the teacher and not strictly a school programme of the British type, the programme's outstanding success had to be acknowledged. It flew directly in the face of popular broadcasting wisdom in Britain that a very wide pattern of consultation would somehow destroy the artistic integrity of the producer/director. Instead the consultation and research which was invested in "Sesame Street" had contributed to a programme which could be justly called an educational break-through. The programme confirmed that research had, after all, a practical application.

Despite the evidence in its favour the British educational broadcasting establishment did not react warmly to "Sesame Street" which they regarded with considerable suspicion, especially the American "razzamatazz" which surrounded the programme. American mainstream television had never been oriented towards education in the same way as the British and this late conversion was heartily mistrusted, especially perhaps by the BBC. The potent mixture of straight entertainment values with educational aims was felt to be culturally alien. Nothing really equivalent to network television for schools existed in the United States and it was difficult to see where a programme like "Sesame Street" could fit in to the British pattern.

Despite this lack of enthusiasm for the programme, however, there were a number of lessons to be learnt from "Sesame Street":

- If educational broadcasters in Britain were not especially enamoured by the spectacle of close production intimacy between producers and researchers, they were impressed by the positive results of the post-programme evaluation.
- The key question which haunted everyone in educational television was: Could television teach? "Sesame Street's" elaborate evaluation schemes seemed to provide evidence that it could and thereby answered the cynics who doubted the efficacy of teaching by television.

In the 1970s educational broadcasting research, therefore, thanks in part to "Sesame Street", gradually became more accepted and prestigious. It certainly gave a boost to the Fellowship Scheme. (The commercial sector was, in any case, less hostile to the mixture of entertainment and education which the programme exemplified.) Since large sums of money were being spent on educational programmes it was important to ensure that they were being spent to some purpose. Research increasingly acquired legitimacy and prestige among educators.

Unfortunately, this occurred just about the time when, overall, money for research again began to be very tight. Unlike the 1950s (and the 1980s) there was still a widespread acceptance in the 1970s of the usefulness of research – one commentator even spoke of the "awe" of research – but the oil crisis of the early 1970s had a detrimental effect on sources of funding.

In these circumstances, therefore, the Independent Authority's support for the Fellowship was of considerable importance. Six Fellows made significant contributions to the research on the use of television in the classroom: Graeme Kemelfield, Jane Steedman, Anne Cuff, Frederick Aicken, Neil Ryder and Michael Williams.

The evaluation of schools broadcasts: Piloting a new approach

Graeme Kemelfield's work[2] was a classic practical evaluative-research study which attracted widespread educational attention and set the pace for all the ITA/IBA Fellows who came after. Kemelfield declared that his one initial aim was "to find out how the skills of a researcher and the results of research and evaluation could benefit school broadcasters." He did not aim to be the detached observer commenting on the effects of a completed broadcast viewed by a test group in laboratory conditions, he preferred to collaborate with the producer from the beginning to define the questions and hypotheses for research and the choice of programmes for evaluation.

Kemelfield's research was long, thorough and complex, and it focused on three programmes: one from Thames Television, one from Yorkshire and one from Granada. All of his studies produced stimulating results but it was the one about a Granada programme on race relations which provoked the widest response and because of its subject matter put the whole matter of educational research on to the front pages of the popular press.

The research focused on a Granada series called "Our Neighbours" which intended to introduce ten- to thirteen-year-old children to questions of race relations by acquainting them with immigrant cultures. The programme chosen for evaluation was "Our Neighbours from Pakistan", which set out to show the children what life was like in Pakistan and then to describe the experiences of one Pakistani family which had settled in Britain.

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[2] Kemelfield, Graeme: The Evaluation of Schools Broadcasts: Piloting a new approach. Leeds/London: Centre for Television Research, Leeds University, and ITA 1972.

The intention of the programme was described as, "encouraging appreciation and tolerance of people of different creeds and races, now living in Britain, through an understanding of their background and way of life". There was an emphasis on Islamic and cultural customs and Granada was concerned that the programmes might not necessarily serve the intended ends, that they might, in fact, reinforce existing prejudices or even stimulate new ones by creating a consciousness of racial differences not previously perceived.

Kemelfield's research justified the Company's concern. The study focussed on British born, non Pakistani children in four schools, three of which had very few immigrants in the school population, and one school which had a high proportion of Pakistanis on the school enrollment. The aim of the research was to see what impact the programme had on all their attitudes.

Kemelfield showed that the programme was highly effective in conveying information about Pakistani customs and ways of life. In schools where the children had very little knowledge of Pakistan, and knew very few immigrants, there was a swing after the programme towards greater acceptance of cultural diversity. However, in the school where there were many Pakistani children the programme had heightened the sensitivity of British born, non-Pakistani pupils to cultural clashes.

Another interesting finding occurred with the statement "Pakistanis are ordinary people like us". Most of the pupils in the schools with low Pakistani populations accepted this before and after – 82% and 85% respectively were in agreement –, but in the school with a high density of immigrants fewer children agreed with the proposition beforehand (68%) and this then fell to 55% after the programme.

A key statement was "Pakistanis and English people should not mix together". At pre-viewing all the children were equally divided between agreement and disagreement with the children from the school with a high Pakistani population tending to have a somewhat more positive attitude towards mixing than the other schools. After viewing, the proportion favouring mixing went up from 40% to 52% in the schools with a low immigrant population but actually fell in the school with a high Pakistani population from 57% to 36%.

There were very clear implications for decision-making in these findings. There was also an important justification for research. Television did have an impact on children and it was important for society to know what this implied. Pupils in all schools in the study demonstrated a willingness to accept the credibility and good faith of the television programme, and pupils gave more correct responses to information about Pakistan and Pakistanis after viewing the programme. However, the children did clearly tend to divide according to the density of the numbers of Pakistani pupils in their school. The high density school displayed more favourable pre-viewing attitudes but in post-viewing their opinions tended to fall more in to the "don't know" category.

According to Kemelfield, there was every indication that, in dealing with race, television was dealing with an area of human response involving fundamental value systems. A child's desire to conform to the customs of his own culture might result in a natural resistance to ideas which threatened his own security and belonging.

The research had an important general bearing on Granada's judgement about the value of this kind of series and the complexities involved in achieving the desired ends. It did give pointers for changes in production and it emphasized the delicate role of the teacher who was required to follow-up on broadcasts which were likely to stir up complex thoughts and feelings in the children. Teachers, Kemelfield felt, should be warned in the programme notes about the frames of mind which might be encountered in classes after exposure to such a programme, particularly in schools with a high proportion of immigrant children.

It was Kemelfield's research which, in a sense, launched the Fellowship Scheme into maturity. It provoked a great deal of interest. For once, broadcaster and researcher had been brought into a real partnership in a way which was very rare in British broadcasting, and the spirit of cooperation had produced research results which were of immediate interest to teachers and to production teams.

Evaluating a school television series for ROSLA[3]

As a result of Kemelfield's "excellent" report, the IBA established a Fellowship in 1973 at the Centre for Television Research in Leeds. The Fellow appointed was Jane Steedman, and she continued the work on evaluation which Kemelfield had pioneered. Her report was published in 1975[4], and in a brief foreword Steedman emphasized the importance of sharing the task of evaluation with producers and decision makers.

Steedman distinguished between two types of evaluation which she called formative and summative. Formative evaluation implied involvement with research from the inception of a programme: one of the most clear examples of this had occurred with "Sesame Street". She went on to say, almost wistfully: "While the value of that kind of approach is probably immense, it is perhaps too much to hope for a similar enterprise here".

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[3] ROSLA — Raising of the School Leaving Age

[4] Steedman, Jane: Evaluating Schools Television: A Programme for ROSLA pupils from the Granada series 'Decision!'. London: IBA 1975.

Despite the success of Kemelfield's approach, programme producers often still did not welcome researchers' involvement. Formative research could be time-consuming and, since many educational programmes had to be produced at a breakneck speed, there was little time for the leisurely discussion of research motivation which many researchers (and even some producers) wished to see develop. Steedman's own research tended to be "summative in type" by which she meant that programmes were evaluated after transmission.

In September 1972 an educational event of major importance in Britain occurred when the legal minimum school-leaving age was raised to sixteen. The three hundred thousand students (45% of their age group), who would otherwise have left in the summer of 1973, had to stay on for an extra year. These so-called ROSLA (Raising Of School Leaving Age) pupils threatened to be very reluctant learners indeed and represented a real challenge to the existing school system. Television, however, played a large part in their every day lives and it was the fond hope of some educators that television might have a role to play in their education in their final year.

In response to all this, in 1973/4 Granada produced a series called "Decision!" which aimed to present ROSLA children with material which would encourage them to understand some of the aspects of decision-making which they would be called upon to make in their adult lives. An assumption of the programme series was that, since ROSLA pupils were unwilling or unable to handle abstractions, real-life situations could be simulated for them by means of television.

In her research, Steedman discussed the aims of the series in some detail. An important component in "Decision!" was the attempt to provide associative material, "a readable link between some living, everyday aspects of the problem under consideration" (in particular its human angles) and the abstract nature of decision-making. Steedman suggested that the role of television was to help the children see the point of what they were being asked to do in class, which was an abstract mental activity: that of seeing what was involved in taking a decision. The series was not intended to explain abstract themes but it was supposed to give concrete meaning to what was being discussed in class by relating it to real-life examples.

The programme studied in the "Decision" series was "Buying a House". Steedman's research was thorough and wide-ranging, and her findings were controversial since she ended by questioning the efficacy of the programme. The details of the enquiry are outside the range of this analysis but on the whole the research indicated that the programme did not appear to succeed in developing decision-making skills among its viewers.

The programme makers, Steedman suggested, had neglected a fundamental prerequisite for educational television, namely, a clear analysis of what the programme was supposed to be about. The programme did not have a clear idea of what decision-making skills actually were. It provided useful information about buying a house, it taught about decision-making but it did not promote the practice of decision-making which was supposedly its real intention. She criticized the commentary for being authoritative and advisory when the programme was not supposed to be directly didactic. This ambiguity, she believed, was a general problem with school television.

Steedman's report illustrated the issues which Kemelfield had argued earlier. Research was most effective when it was intimately involved with programme development from the very beginning. Steedman's highly analytical dissection of the "Decision" programme pointed out fundamental flaws in the programme's logic and, more generally, indicated that programmes might produce the very opposite effects to those which were intended. Had she been able to explore certain issues with children while the series was being planned it might have resulted in a better programme.

The task of education requires clearly defined goals and a clear understanding of what is intended to be taught, a time-consuming process. Television production, however, is expensive and programme makers are constantly under pressure to produce programmes rapidly. This fundamental conflict, she suggested, lies at the heart of many of the problems which educational television encounters.

Despite its small scale the IBA Fellowship, in the absence of a national policy on educational broadcasting research, continued to be a major contributor to the published research effort. Looking back it is remarkable how closely the Fellows shadowed the educational concerns of the day. For example two issues which worried educators in the 1970s were the deficiencies in language teaching and in science instruction. Three reports by Anne Cuff, Frederick Aicken and Neil Ryder covered these topics.

A study of the use of modern language broadcasts for schools

The lack of foreign language skills of the British school child had long been recognized as a major flaw in the British education system, but in the 1970s, as eyes turned towards Europe, this concern became more acute. In 1977, Anne Cuff carried out a Fellowship study of the use of television in modern language teaching in schools.[5]

Language programmes on television had been an early and popular success in schools and with adults. The Cuff Fellowship was a study of the use by secondary school teachers of a school television language series designed for twelve- to fifteen-year-old pupils of all abilities.

There were three main lines of investigation: a national survey of teacher opinion about television language broadcasts for the middle secondary years; an objective, in depth investigation of the use of the French programme "Le Nouvel Arrivé" (broadcast by Thames Television) with eleven sample classes; and a national questionnaire of how teachers used "Le Nouvel Arrivé".

From the broad survey of teacher reaction to the programme, Cuff believed that the language programmes could be of great value in the classroom, though they could not teach pupils to speak a foreign language. They did provide an interesting basis for oral question-and-answer work, classroom dramatization, and drilling in certain points of grammar.

Television offered invaluable help in the development of listening skills and could be used in conjunction with various types of oral or written comprehension questions. The role played by the teacher was a determining factor, however, in the benefit which pupils derived from the programme. Teachers could use television more extensively in language teaching than they actually did.

Cuff's findings were very detailed, emphasizing the practical help which broadcasters could provide. She believed that it was necessary for language programmes to "sell" themselves to teachers by suggesting in concrete terms ways in which programmes could be used to support teaching at all levels of ability. Teachers wanted support materials, language exercises on tape would be very welcome. They were also willing to allocate money for the purchase of these.

In addition to language teaching, science instruction was always regarded as a special area where television might make a major contribution in classroom instruction. Science had been an early and popular topic for educational producers in Britain. Scientific equipment was expensive, and for many years it was the received wisdom that experiments which were impossible to do in school laboratories could be demonstrated on television. Television could provide each child "with a view down a microscope".

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[5] Cuff, Anne: A Study of the Use of Modern Language Broadcasts for Schools – with particular reference to Le Nouvel Arrivé. Brighton: Brighton Polytechnic 1975/6.

Certainly some of the earliest and most prestigious educational programmes were directed at Sixth Form science students. These often had distinguished scientists as teachers/presenters, and in the early days such programmes were regarded as the flagships of educational television. In addition, science teachers had tended to be less hostile to educational television than those in the humanities.

Unfortunately, however, the pressure of examinations had become so acute in secondary schools that television programmes were often a luxury which science teachers could not afford to use, and initial enthusiasm waned. Gradually, producers began to shift away from the specialist prestigious programmes and, for a while, there was uncertainty about the place of science programming in the educational television schedule.

In the 1970s, however, educators began to worry yet again about the scientific illiteracy which affected the majority of British school children. There was also an increasing interest in the teaching of science in primary schools. Mathematics programmes for younger children had scored a notable success, and it was felt that television might have a new role to play in science teaching, especially in primary schools where many teachers had little scientific training. All this was reflected in a report of an IBA Fellow in 1973, Frederick Aicken.[6]

Science teaching in primary school

Aicken was interested in the teaching of science in primary schools and the transition from primary to secondary school science. He was fascinated by the potential of visual aids in education and especially the role of television in stimulating and broadening the scientific imagination. According to Aicken, the purpose of a science education was not simply to produce professional practical scientists. Potentially science was a liberal education in itself.

School science at the secondary level was largely examination-oriented, dominated by science specialists and neglectful of the generalist scientific education of the majority of children. Aicken believed television could help to counteract this, and the place to start was in the primary school.

Primary schools had, however, too often emphasized scientific knowledge rather than an understanding of the scientific method. Young children should be taught to look at science as a way of thinking and a means of problem-solving and not as a subject surrounded by a mystique (and complicated apparatus). Aicken wanted a change in science education, "a percolating of the non-specialist approach upwards rather than the deadening infusion of the specialist science downwards".[7]

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[6] Aicken, Frederick: Problems in Science Education (particularly in the 9 – 13 age range) and the possible role of television in their solution. London: IBA 1973.

The report was a stimulating one. Aicken, for example, diagnosed the problems which the overdomination of science by male teachers in secondary schools had produced. Their emphasis on "professional" science had frightened female teachers in primary schools and prevented them from teaching any science at all! Primary science should not merely give children a "trailer" for what they were to expect in secondary schools, as many secondary school science teachers believed, it should be accepted as a practical subject in its own right.

The Aicken report created much interest, and science programmes on television today can be traced back to some of the educational thinking in the early 1970s of which Aicken was a part. In the 1990s, Britain, with the introduction of the National Curriculum, has accepted the idea that science and technology should be part of the core curriculum for all students. The ideas of Aicken and another IBA Fellow, Neil Ryder, have much to offer this new approach which, for the first time, emphasizes the teaching of science at all levels in schools.

"Science, Television and the Adolescent"

Neil Ryder's report which took three years to write was published as a book in 1982.[8] It was probably the most original and the most philosophical of all the IBA Fellowships. Yet it was based on practical evidence and experience in classroom teaching. Of all the Fellowships, Ryder's is certainly the most demanding to read.

In a sense it consisted of at least six reports since it was divided into six sections, each of which was packed with ideas and observations which drew widely on philosophy, history, communication theory, psychology, art history, the history of science and much more. These were all discussed in a manner relevant to television. This broad cultural perspective was combined with a microscopic, exhaustive analysis of a four minute item on the BBC News.

Ryder was concerned with the way science programmes (indeed much of television news) often consisted of securing "expert knowledge from experts and then using all the media talent and techniques at their disposal to put it out for popular consumption." According to Ryder, what was dangerous about this was that viewers were left with the illusion that television had presented an argument for their consideration when this had not been the case. Rather, television had interpreted the facts.

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[7] Aicken, p. vi.

[8] Ryder, Neil. Science, Television and the Adolescent. London: IBA 1982.

Ryder's research grappled with the complex issue of trying to understand both what television was saying about a scientific issue and what the viewer was hearing about it. It was an ambitious undertaking, and far removed from narrow effects-type investigations of the more conventional type. On the way to his goal of trying to understand what was going on between the television programme and the viewer, Ryder discussed such varied topics as:

- the need for changes in the school curriculum;
- what adolescents might want from life;
- the differences in viewing habits between different age groups;
- problems in education, politics and society;
- the implications of failure; and much, much more.

Ryder was based at the Centre for Science and Mathematics Education at Chelsea College in London. Two themes recurred throughout his research. Firstly the active role of the viewer as someone who makes meaning from the fragments of information thrown out by television and secondly what we should expect from the News as a function of television.

Ryder possessed the true educator's interest in the "imagination" of the learner. One of the many strengths of the report was the anecdotal element where Ryder discussed his own experiences teaching science to children. At the beginning of the book he discussed the genesis of his research. One morning a technical hitch in the studio at the Centre for Science Education had forced him to abandon his plans for a morning's recording session with four adolescent boys.

Instead of an exercise explaining science to camera, they were all left free to talk about the science which meant something to them. In fact, Ryder pointed out, they were left free not so much to "talk" but to "argue", and "Astronomy was what they most wanted to fight about". When Ryder told the boys he wanted to know what kind of science excited them, he expected to hear about topics relevant to them such as their hi-fi equipment. But they were not interested in the science behind consumer products, their real enthusiasm was for the major scientific and philosophical question of "whether there was life on Mars". These were not academic students but boys who were regarded as failures by the education system. Ryder examined the discussion in considerable detail and what struck him was the way the boys used their information for purposes of argument.

As a result of this experience the whole function of argument in the growth of understanding became a central feature of his research. He was also impressed by the boys' acknowledgement that their information about astronomy came from television. From this Ryder went on to reflect on how science was presented on television.

Ryder ranged far and wide to find a theoretical model of the television production and viewing process. In the final section Ryder asked a number of open questions and suggested all sorts of directions for research. He was critical of the way science was taught in schools and suggested that a serious attempt should be made to devise a curriculum which worked back to concepts from "wholes". This would be better than the accepted conventional approach to the teaching of science which was dominated by the serialist building-block idea with the length of learning series being too long for the children to reach an important scientific decision before they left school . . . or were alienated from science.

Ryder believed that there should be a new emphasis on argument in the curriculum. Young people were not taught how to argue nor were they given practice in argument. If young people were not asked to notice how one argument differed from another they could not see how they were being deceived. Argument, when it occurred in the school curriculum, was not "picked out and inspected."

The idea of examining what viewers understand about a television item about science was a formidable undertaking involving many complexities. Ryder's work grappled with the most fundamental question in educational television: Can viewers actually learn from watching?

Society depends more and more on electronic communication technology for "information", and an explanation of the nature of this information process is vital. Yet it is an area of research which, because of its very complexity, is assiduously avoided. While Ryder could not provide the answers, he did present an analysis of problems which most educators and producers try to ignore or avoid because they are so difficult. He threw light on what was involved in the complex interaction between television and the viewer. He raised questions which were of fundamental importance for television educators and teachers in training, and his work is one of the most far-reaching and profound to emerge from the Fellowship. Unfortunately, its very philosophical depth and breadth means that it is one of the most difficult to understand in comparison with most research into educational television.

Curriculum decision-making and educational television

The final report to be examined in this chapter, the report by Michael Williams, dealt with educational television in schools from a very different point of view.[9]

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[9] Williams, Michael T.: Curriculum Decision-making and Educational Television. London: IBA 1979.

Williams was not interested in theory but in the practical reasons why television was used in some schools and not in others. Williams was a one-year Fellow, and his report was founded on the premise that the use of educational television resulted from "curriculum decisions". He was interested in the administrative process which contributed to whether television programmes were watched in particular schools.

The study focussed on geography departments in maintained schools in England, Wales and Scotland. According to Williams, it was heads of departments who were crucial in curriculum decisions, but Williams was dismayed by their ignorance of television and the programmes on offer. A head of a Geography department, with a reputation for being well-informed about audio-visual aids, only found out about a major geography series "The Land" through a casual glance at the TV Times, and this was after the series had been transmitted for several years. Heads of Geography departments declared themselves to be favourably disposed towards television when questioned but they did not seem to see it as an important aspect of their own teaching programme.

The most important finding of Williams' whole enquiry was the surprising autonomy of the subject departments within British schools. The departmental heads were the people to be targeted if educational television producers wished to have an effective impact on secondary schools.

Williams' research sharpened the whole approach of the IBA and the commercial companies to publicity and the distribution of support material. By pinpointing the decision-making process he showed that information had to be targeted accurately. It was not sufficient to send material out to schools in the pious hope that it would somehow reach those who needed it. It had to be sent to the right people, or it might just as well not be sent at all.

Williams' research methodology was also influential and is now regarded as one of the most accurate methods of finding out how television is actually used by teachers in schools on a day-to-day basis: He asked the heads of departments to keep a diary which provided an account of their decision-making.

Conclusion

These six Fellowships produced useful information for teachers and producers. They touched on central issues in education, and it was a pity that more elaborate and consistent research projects did not develop directly from each one of them. It was, however, largely a question of money, and it was not within the IBA's area of responsibility to provide educational broadcasting research on any large scale. The Authority could focus on a few areas of interest but others had to take responsibility for more elaborate development work.

With the establishment of the Open University, however, the problems associated with it, how, and why people learn by television tended to be the subject of major studies in that institution, which was entirely appropriate. The IBA Fellowship, however, while it continued to be concerned with the role of television in the classroom, moved on to other neglected areas.

These included, among others, television and the pre-school child, television and the disadvantaged child, social action broadcasting, community television, and media studies. The studies of the Fellows on the use of television in the classroom, however, were seminal and were perhaps the main reason for the excellent reputation which the IBA Educational Fellowship Scheme earned for itself in British educational research.

Rolf Horneij

Programmes and Services Aimed at Teachers

When I began to prepare this paper[1], I wrote letters to nearly every broadcasting organization in Europe. In return, I received pamphlets, booklets, videocassettes, teachers' guides, books, etc. A lot of activities aimed at providing services for teachers are being carried out in Europe, and have been for a long time.

However, not all organizations are engaged in this kind of production, but there is a sufficient number of them to make it possible for me to draw conclusions and distinguish a pattern. I found a lot of good examples of what an educational producer can do to make it easier for teachers to use our products. These included, apart from the common teacher's guides, television series directed to teachers, multimedia packages on methodology, programmes and print to help authorities implement new national curricula. Conclusion: A broadcaster's possibilities to serve teachers are rich and varied.

The most basic way of giving service to teachers is to tell them that we exist and that we have programmes for them to use in the classroom. Educational producers in Belgium inform their teachers in a recurrent broadcast television programme with excerpts from upcoming programmes and comments and visits to classes that have already used them.

What kind of person is the average teacher? Does he or she want our programmes, our service? One of my colleagues once remarked that a prerequisite of being a teacher, and remaining one, was a complete lack of fantasy and a good portion of endurance.

We carried out a study not too long ago[2], where we showed that in 1987 15% of teachers in an average compulsory school did not have access to video, 75% of teachers at junior level had access to video, 85% at intermediate level, and 100% at senior level. The report also showed that 50% of teachers at intermediate level used video, and 70% of teachers at senior level used video in the subjects Swedish, social studies, sciences, and foreign languages. Most of them, to our great pleasure, used programmes from our own Swedish educational broadcasting service. All teachers of foreign languages at senior level used sound tapes, and nine out of ten used our radio programmes.

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[1] This is an edited version of a talk with programme demonstrations presented at the 1989 International EBU Seminar in Basle.

[2] Radio and television in the nine-year compulsory school. Use of media. Information. Needs.

Half of all teachers in the compulsory school would have liked to use more video. Why didn't they? They blamed difficulties in booking video machines and, more important, a lack of knowledge of what programmes were available. Another reason was a lack of programmes in certain subjects.

Knowledge of the mental status of teachers can guide us in the making of programmes and in the selection of subject-matter. Another survey carried out recently among teachers in upper secondary school[3] showed that 84% of teachers liked their profession and wanted to go on teaching. They rarely collaborated with colleagues, compared with teachers at junior level; 30% of them were uncommitted, modest and resigned, but were open to changes in curriculum. All-embracing subjects like environment, peace, and international understanding were ranked high.

The report set out seven main characteristics of upper secondary school teachers, based on how they themselves saw their profession:

- The normal, average teacher is rather satisfied (18% of the group studied).
- The ambivalent teacher is very modest, does not feel loyalty to his/her school: a majority were male respondents.
- The modest teacher does not expect much of his/her school and his/her own performance (16% of the respondents under the age of 34, 58% of male respondents; 23% of the sample).
- The resigned teacher's most characteristic trait is a complete lack of confidence in school management; he/she seems uninterested in his/her job (66% of male and rather young respondents; 9% of the sample altogether).
- The frustrated teacher is slightly coloured by the classic teacher's vocation; he/she has high expectations but feels that school management cannot meet his/her needs and wishes (11% of sample, but 57% of the female respondents).
- The harmonious teacher is well-behaved and conscientious, has confidence in school management, and thinks he/she has a great influence on his/her working conditions; he/she has worked for many years, and likes to participate in experimental and developmental work: 62% men, 13% of sample.
- The fiery spirit always does his/her best and feels it is worth while; the average age is high: 90% women, 10% headmasters (equalling the norm for the entire profession), 14% of sample.

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[3] Teachers at upper secondary school – Teachers look at their professional role and working conditions.

The teacher's guide

The next category of service for teachers is the teacher's guide. This is the most widely spread service and it takes the form of printed material: sheets and booklets. WDR issues a monthly magazine that reaches 75% of all schools in North-Rhine-Westphalia and contains pages for teachers and worksheets for pupils.

In France, the CNDP publishes even a weekly booklet, "La Petite Lucarne", containing the following week's school television and radio programmes. It provides background information and suggestions for further reading.

A simple but effective way of helping inexperienced teachers in media education was tried by NOT, the Dutch educational television organization, with the series "Watching television differently".[4] The producers thought it important not to frighten the teachers with too much preparatory work, so they provided them with excellent print material which proved to be one of the main reasons for the tremendous success of the series.

Teaching methodology

The following category of service might be labelled 'Programmes and packages on methodology'. In the Netherlands, NOT helped the Ministry of Education introduce English as a foreign language in elementary schools. The teachers had not been trained, and many had only a rudimentary knowledge of English. NOT and the Ministry set up a joint venture resulting in a package of 18 television programmes, two textbooks, teachers' guides, worksheets, sound cassettes, etc. to be used in the classroom.

How was this done? A new package had to be developed. The teachers had to be instructed on how to use the multi-media package, the pupils were confronted with ten television programmes and printed material, partly financed by the Ministry. Teacher-training centres were set up. The information supplied was very basic and practical (e.g. how to use games, what one can do with a tape recorder). It seemed to be shockingly practical after so many years of audio-visual equipment, but it was judged necessary and met a need.

Examples received from other countries were even more basic and practical. I don't think that anyone would provide that sort of information if there wasn't a need for it. In an ITV publication, I found in a check-list for making a video recording the simple question: Is the machine switched on? Is the cassette for the recording inserted? I learned in preparing this paper that one must never take things for granted.

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[4] Cf. Van der Voort's report in this volume, pp. 549 – 555.

The NRK Education Department analysed the classroom situation in their publication "The use of school television":

> "The television set is placed in the lower left corner of the classroom. Advantages: no refurnishing is needed. Daylight does not give reflections on the screen. Disadvantages: Some pupils are placed too near the screen and others too far from it. Most pupils will have to twist their heads towards the screen."

"Reality or video" is the title of a poster that we distributed to all schools in Sweden, hoping that it would be displayed on classroom walls. In it we claim that "children are interested in radio, film and television. You can take advantage of that interest in your teaching." This referred to using television in the classroom, and we have had educational television for almost 30 years.

Implementing new curricula

In the past few years in both Sweden and the United Kingdom, educational broadcasters have been engaged in the production of specific projects for teachers, in many cases in conjunction with the national educational authorities, and often to implement new curricula or to change the traditional school education procedure.

In the UK, these large-scale activities resulted from the new Education Reform Act that was passed by Parliament in summer 1988.
Christopher Jones described what it implied:[5]

The Education Reform Act requires radical change in traditional school education. This implies:

- placing more school-governing power in the hands of parents and community industry;
- devolving financial management to most schools;
- considerably reducing the powers and responsibilities of local education authorities and, most important,
- constructing a 'national curriculum' to be followed in all schools in England and Wales.

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[5] Quoted from a letter received from Christopher Jones, Deputy Head of Educational Broadcasting of the former IBA, for the preparation of this paper.

The response of educational broadcasting has been to cut through former difficulties and plan a rapid increase in INSET programmes. Some of these have been supported by the Department of Education and Science by part-funding of series meant to alleviate particular areas of teacher shortage (for example, business education). The second phase will concentrate on helping teachers to implement the national curriculum, starting from next year."

A series of 11 programmes co-produced by YTV and 11 Local Education Authorities (LEAs) was one outcome of this new interest. It is about change and handling change. The programmes and the printed material were meant to form the basis of a day's in-service education for teachers, abbreviated to INSET. Other activities of this kind are described elsewhere in this book.[6]

What is interesting in our connection is the fact that these series were made in partnership with the Department of Education and Science, i.e. the UK equivalent to the Ministry of Education, and that the broadcasters were desperately needed to help solve suddenly emerging fundamental problems of the educational system and to combat the shortage of teachers, especially in new areas such as business education.

The BBC has also been investing a lot of time and resources in an INSET strand of programmes over the last couple of years, the emphasis being on curriculum subjects: science, mathematics, technology.

Last year, they produced two television programmes on the use of broadcast resources in the classroom, both backed up by print material intended to provide the basis for discussion during in-service training sessions. I quote from the Introduction in the booklet for "Television in the Primary Classroom':

> "The programme starts with the assertion that the best way to learn is by first-hand experience, whereas television is often associated with a second-hand, pre-digested experience. School television, though, is different from 'ordinary' television, and made with different objectives – principally to capture children's imagination, and to stimulate them to active learning. It must also fit in with teachers' patterns of work, and with primary syllabuses. The fact that more than 90% of primary schools use it is evidence of its reasonable success."

The fact that a school television programme must fit in with the teachers' patterns of work to reach its optimum goal has been expressed by many personalities in the programme examples shown.

The BBC is transmitting a five-programme unit on the Vikings for eight- to ten-year-olds, and a programme for teachers intended to

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[6] Cf. Jacqueline Johnston's and Michael Scarborough's contributions, pp. 137 – 141 and 142 – 147.

- give teachers an idea of the programmes;
- give them ideas on how to follow up,
- make them more ambitious in their approach to using television.

They deliberately chose a better-than-average and very dynamic teacher as example and model for other teachers to follow.

The use of pictures for didactic purposes did not come into existence with educational television. It has always been an integral part of good teaching, even if it was not always a moving picture.

The Südwestfunk (SWF) has made a series of three programmes, "Umgang mit dem Schulfernsehen" (on the use of school television). The target audience is not only teachers but parents, as well. The first programme, "Vom Orbis pictus zum Bildschirm", gives the history of using visual material in teaching. The second, "Wie Schulfernsehen gemacht wird", provides many examples of the actual making of programmes and of the planning and collaboration with educational authorities. The third programme, "Schulfernsehen im Unterricht", gives examples of the use of television in five different subject areas such as civics, mathematics, French, music, and history.

The very best service we can give to teachers is of course the highest possible quality of the programmes themselves directed to the pupils. But programmes, artistically perfect and jouralistically brilliant as they may be, are of minor pedagogical value for pupils if they are not integrated in a school's work and are not relevant.

Integrating programmes into the overall teaching is of course the teachers' business, but we can help them. One way of doing this is to incorporate a message to teachers about classroom work in the pupils' programmes.

My impression is that the more friendly we as educational broadcasters are with the educational establishment, the more likely we are to succeed. This friendliness can be expressed in many ways: by listening to teachers' advice, by learning about conditions in the school, by making programmes on methodology, etc.

In Sweden, we have taken this a step further. We have accepted money from the Ministry of Education and, in doing so, have jeopardized our independence as public service broadcasters. As evil tongues would have it, our Education Department is engaged in an in-service education course for teachers at university level. The teachers/students taking our course can get an academic degree.

My company was asked by the Ministry to participate in a vast project of in-service education for teachers, together with universities and various municipalities. The reason was that a new teacher education scheme had been introduced. Teachers already working had to complement their training with in-service courses in order to achieve the same level of competence as new generations of teachers.

SR/UR was called upon to play an important role in this project, but we wanted two guarantees. First, that the final decision on programme content and format would be ours and, secondly, that half of the production costs would be financed out of tax revenue.

Our demands were accepted. We produce single programmes to be used during in-service sessions and whole courses in topic areas. Television, radio, print, and local radio are the media used. Our involvement in the national INSET scheme has strengthened us and given us good political backing.

Programmes, both radio and television, designed for classroom use are in the majority of cases used in recorded form. It is the responsibility of the broadcaster to make it easy for teachers to obtain copies of the programmes, as a service for teachers.

One way of doing this is to establish good relations with the network of teaching-materials depots; in Sweden we call them audio-visual centres. We have regular meetings with them, we co-finance research work and we assure each other that one cannot live without the other. All our programmes are free for off-air use and the distribution from the audio-visual centres to schools is very efficient.

Conclusion

We can use our media to inform. We can inform in print, not only with the help of catalogues but also in periodical publications. Teachers' guides are probably the most widespread means of helping teachers use our programmes.

Programmes on methodology make up the third category of programmes aimed at teachers. In England, the Netherlands, and Sweden, educational broadcasting has been a crucial factor in the renewal of teaching methods and in helping to implement new national curricula.

Practical programmes and booklets on how to use videocassettes seem to be a necessary part of our output. We must not overestimate teachers' skills in this field. Broadcasting teachers' programmes at times when parents can watch can be an efficient way of involving parents in school work.

Having good relations with the educational authorities guarantees good conditions at the receiving end. We can never know what is considered the best of what we provide; we can guess, use our experience as former teachers, our intuition. Commissioning researchers to study relevant cases and then listening to what they say is a way of equipping ourselves with the right sort of knowledge.

Jacqueline Johnston

"Teaching Today" – The BBC's Commitment to INSET

BBC School Television's programmes for INSET, i.e. In-Service Education for Teachers, began in 1988. Before that there had been the occasional series but nothing on a regular basis. The new initiative owed its beginnings to a view that television was, for a number of reasons, well-placed to help teachers at a time when major changes were about to occur in the British educational system. However, School Television's income, from the licence fee, is specifically for pupils' programmes, and it was necessary from the beginning to seek appropriate external funding and to have the agreement of the BBC's Board of Governors to take on this additional commitment.

BBC INSET was launched in January 1988 with a unit of five programmes on Secondary Science. This was followed successively by five programme units on Secondary Mathematics and on TVEI, the Government's new Technical and Vocational Education Initiative, and a single programme on Home Economics. Each unit was accompanied by a folder of print support, distributed free to all secondary schools, teacher education colleges and Local Education Authorities.

With such a new venture there were lots of uncertainties. Which target audience would show most interest? How would the programmes be used? Would the print support be appropriate? How should we proceed? Response from schools was encouraging. The BBC/ITV Annual Survey of Listening and Viewing, together with research carried out by the BBC's Broadcasting Research Department, gave us some interesting insights. Take-up of the programmes was high with 40 to 50 percent of secondary schools recording on first transmission. Programmes were recorded primarily for school-based in-service and for some Local Education Authority courses.

By 1989 – 1990 thirteen series for teachers had been scheduled. New units included School Management, Economic Awareness, Modern Language Teaching and a programme about the use of radio and television in the classroom. By this time schools' priorities and their organization of in-service were becoming much clearer. The 1988 Education Reform Act had put the new National Curriculum in England and Wales top of the agenda. School-based in-service days were becoming a regular feature of school life, and INSET co-ordinators were being identified to help. But what was also becoming clearer was the difficulty of getting information on BBC INSET to the right people.

At first the free distribution of notes for each series had raised awareness but with later series this was not possible; and by summer 1990 it was obvious that the information of what the BBC was producing was not always registering with those who needed to know. A new strategy was called for.

Our first response was to pull together the BBC's provision for INSET and to introduce it under the new name "Teaching Today" in an annual programme booklet in order to make it easier for teachers and trainers to find the programmes that interested them. The annual information booklet "Teaching Today" is now sent free to all primary and secondary schools and is available on request from BBC Education Information. Regular updates are also published in the national and educational press.

Another positive development was to improve the transmission pattern and to create regular slots on BBC2 for "Teaching Today" output. From Autumn 1990, "Teaching Today" has been broadcast on Wednesdays at 11.35 – 12.05 (repeated on Thursdays at 12.50 – 13.20) and on Fridays at 9.15 – 9.45.

The style of "Teaching Today" has also varied considerably – from location filming and improvised drama to studio-based discussion. Well-liked are the documentary style programmes which explore issues, identify interesting practice and stimulate productive staff discussion. Initially each programme is viewed in its entirety but INSET co-ordinators may choose to focus on specific sequences. To help them dip into programmes in this way the support booklets are designed to be practical and easy to use; programme synopses and follow-up questions are sharply focussed and clearly signposted. Costs to schools are kept to a minimum, and additional copies of notes are readily available from Broadcasting Support Services.

As well as weekly broadcasts with supporting notes there is also a growing provision of videos for sale. The first units on Mathematics, Science and TVEI are all available on video, and later units on Assessment, Collective Worship, and Teaching Science are now added to the catalogue. Although programmes are repeated on BBC2 on a regular basis and can be recorded off-air, schools sometimes prefer to buy – if they have missed a programme it avoids the frustration of waiting until the next round of broadcasts.

Deciding what new subjects or topics to cover in "Teaching Today" is always difficult. BBC Education Officers visit schools and discuss priorities with INSET co-ordinators, advisers and Inspectors. Meetings are held with Government Bodies in England and Wales such as the National Curriculum Council, the School Examinations and Assessment Council and the Department of Education and Science to assess their priorities. The situation in Scotland and Northern Ireland is reviewed to see what common ground exists and to assess the potential for initiatives from the United Kingdom.

Programme ideas generated from this consultative process begin to become a reality when they coincide with the priorities of potential co-funders. A recent example included a three-programme unit on Health Education, supported by the Health Authorities in England, Wales, Scotland and Northern Ireland and filmed in all four countries. This was an excellent illustration of a co-operative venture involving many partners and reflecting a developing area of the curriculum in all parts of the United Kingdom.

Another was the changing methods of assessment and the introduction of national tests for primary school pupils in England and Wales, which led to a two-programme unit on Assessment made in association with the School Examinations and Assessment Council. At this stage it is too early to know the extent of the take-up in schools, but the demand for support notes has been substantial.

In all of these co-operative ventures timing is crucial. Every organization has a different bureaucratic structure, and working with outside partners always takes longer than you expect. And constantly at the forefront is the need to broadcast at a date most helpful for teachers.

In most instances outside partners tend to be national agencies but occasionally a consortium of business interests has proved possible. A unit on Economic Awareness was partly funded by a Consortium of British Industries working through the Department of Trade and Industry.

In working with outside agencies, editorial control remains with the BBC but detailed advice comes from an informal team that includes a nominee of the co-funder, a BBC Education Officer, and an outside consultant. A list of co-funders can be found in Tab. 1 (right column).

As you would expect, sometimes negotiations go awry and plans have to be postponed or dropped altogether. This is always disappointing and has led School Television to invest some of its own funds in "Teaching Today" to enable it to respond more quickly to teachers' needs.

One area of special concern has been Primary Science. It is a subject which is now compulsory in all British primary schools, and yet few practising teachers have been fully trained in this area. The need to support primary teachers embarking on new subjects for the very first time soon became obvious. With the introduction of the new science curriculum, School Television produced three series for pupils spanning

Tab. 1

"TEACHING TODAY"	
BBC EDUCATION INSET SERIES	PRODUCED IN ASSOCIATION WITH:
Secondary Science	Department of Education and Science, Department of Trade and Industry.
Secondary Mathematics	Department of Education and Science, Department of Trade and Industry.
GCSE Home Economics	All Saints Educational Trust.
Economic Awareness	Consortium of British Industries, Department of Trade and Industry.
Modern Languages: The Communicative Classroom	
School Management	Versioning of LEAP project.
Teachers into Business and Industry.	The Department of Trade and Industry and some support from British Industry.
Religious Education and Workshop	A Consortium of Charitable Religious Trusts.
Teaching Science in Primary School.	
Primary Science.	
The Infant Core Curriculum.	
Individual Needs in the Classroom.	
Managing Assessment	
Assessment Key Stage 1 & 2	School Examinations and Assessment Council.
Health Education	The Health Authorities in England and Wales, Scotland and Northern Ireland.
PE in the Primary School	The Sports Council of Great Britain.
Using Television in the Classroom	
Using Radio in the Classroom	
Language in the National Curriculum	Consortium of Local Education Authorities
Primary Technology	National Curriculum Council
Secondary Technology	National Curriculum Council
Environmental Education	International Broadcasting Trust.
Geography Key Stage 1 & 2	National Curriculum Council
The Management of Pupil Behaviour.	

the age range from infants to upper primary ('Thinkabout Science", "Science Challenge", and "Search out Science").

What emerged in making these series was the need to give teachers more information on how to develop classroom activities. Now as a matter of course, each new science series for pupils has a teacher's programme giving practical information and advice on how to cope with experiments and work effectively with small groups in the routine of a large class.

With British teachers having to respond to so many new initiatives, and with no let-up in sight, it looks certain that the need for teacher-centred broadcasts and resources will continue to increase. The challenge for "Teaching Today" is to constantly reassess how broadcasts can best serve these needs and to build on the experience and knowledge of the last four years.

Tab. 2

Support material and activities
• INSET notes published by BBC Education (which is also overseeing the distributors, sales and reprinting; • INSET VIDEOS: Education Reform Act Managing Assessment Promoting A Positive Image Secondary Science, Maths etc. Teachers into Business and Industry Primary Science – Levers, Materials and Floating Assessment Key Stage One Using your Wordpower • BBC Education Information Unit responds to enquiries about broadcasts and non-broadcast resources for INSET; • INSET programmes and resources promoted to schools, Initial Teaching Training colleges, etc. through catalogues, flyers, exhibitions, advertising and broadcast trails.

Michael Scarborough

Independent Television and In-service Education for Teachers (INSET)

In the last half of the 80s, INSET became a new word on every teacher's lips. INSET or In-Service Education for Teachers is one of those many acronyms with which late twentieth century professions tend to be plagued. At the best, it encouraged an awareness of the need for continuous development and appraisal of one's skills and, at the worst, it was perceived as a threat to personal confidence and professional esteem.

There was no doubt that a flood of ideas about in-service education did, for a period, overwhelm many schools. It was a major change to the way in which they had worked and there was uncertainty about how to structure such training and indeed what areas of experience needed particular support. Even the government's insistence on each school completing a number of school-based training days every year did not ease the problem, though many schools did tackle these effectively and imaginatively.

Television for schools had always had an indirect training role. Series for pupils, whether at primary, secondary or even further education level, often introduced new ideas and explored new methods of encouraging learning. A series for primary children, like "Our World" (Yorkshire Television) or "Stop, look, listen" (Central Television) could both encourage children to investigate new themes and show teachers how they might structure new learning strategies.

Many teachers are conservative in their teaching methods and programmes which embodied the use of new technology, creative drama, problem solving and surveys could give them confidence to break new ground. A series of economics programmes for older pupils would support a basic understanding of difficult concepts. By its content and its style it could also give teachers new insights into ways of presenting complex information. Covert training was seen as effective training.

In addition, all television companies had employed education officers who, as a major part of their role, contributed to education seminars, conferences and courses. This work frequently involved exploring curriculum developments as well as encouraging good practice in the use of television. Education officers were valued as advisers on a whole range of school issues.

The increased demand for teacher training presented television with a new challenge. Over 40,000 schools across the country were looking for help. However, defining what help was required was not easy, for different responses would come from those on the chalkface of the classroom, from Local Education Authority Advisers and from those in the Government Department of Education and Science who were setting new policies. Was it help with increasing knowledge of a subject . . . of history, maths, English or science? Was it a need to gain new teaching skills and improved classroom management? Were there new fields of expertise in curriculum planning and assessment to be acquired at a school rather than an individual level?

Any research showed that there was need for help in all of these so that the problem for a television company became more one of identifying priorities and securing expert and relevant advice. It was also a fact that television companies had little experience of making material directly *focussed* on training needs, generally that had been done by small independent production companies.

Yorkshire Television's first approach to INSET programming was in a sense very ambitious. It was recognised that in these early years of great change in British Education there was probably more need to cover a wide range of issues than to address very specific subject issues. The biggest problem, it seemed, was to give teachers confidence in talking about the changes and, indeed, to move them towards implementing them in their schools. Across the country teachers were being brought together to discuss their own skills and performance but often they had no ready resources to raise issues and stimulate discussion. Clearly Yorkshire Television would need to seek a great deal of advice.

For this reason and because a major series would be very expensive to produce, it was agreed that partners would be sought from Local Education Authorities across the country. If ten or so Authorities would be financial partners and form a consultative and editorial body then a series could be produced which would not only meet their local training needs but would also be relevant to all education authorities. Such a series could be broadcast within the ITV Schools' network and be marketed as a video resource pack. The Education Authorities would provide up-to-date educational knowledge and expertise, Yorkshire Television would provide exciting and imaginative presentation. To secure educational credibility David Hargreaves, Professor of Education at the University of Cambridge, was invited to be the series adviser.

Eleven education authorities were enthusiastic, and an early meeting between themselves and the Yorkshire Television production team identified key issues and overall philosophy. Television would get a well-researched and up-to-date INSET series and the Education Authorities would have a resource structured to their needs and featuring some of their own schools.

So what did the partnership of educationists and programme-makers identify as a framework for ten programmes, each of 20 minutes duration. Above all they saw the programmes being used in a seminar or workshop environment and that meant that they had to be lively in style as well as flexible in usage. Primary school teachers, working in the school staff-room, would use the resource quite differently from a group of secondary teachers attending a series of meetings organised by Local Education Authority Inspectors or Advisers. However, there was need for a unifying element and that would be the requirement, in a changing educational climate, for teachers to think much wider than their own subject specialism and classroom and to plan and work within a whole school policy.

The final pattern of programme would include eleven key themes:

Curriculum change – primary
Curriculum change – secondary
Assessment – primary
Assessment – secondary
Progression and continuity
Pupil diversity
Equality of opportunity – race, gender
Teaching and learning
Promoting good behaviour
Personal and social development – primary
Personal and social development – secondary

There would be no single format for these programmes, each subject could merit its own approach, but liveliness would be a keynote and there would be resistance to a rather stern didactic tone which dominates too many educational training videos. School case studies and the voices of individual teachers would be central to each programme and it would be these that would promote discussion and motivate new thinking.

At the time of initial planning and production, implementing the National Curriculum was an urgent concern and television could give specific help. Schools had received a mountain of printed material about the changes. They could consult detailed printed proposals for schemes of work, study units and attainment targets but understanding these and interpreting them in terms of their own schools was very different. Teachers needed confidence to know they could tackle the changes and they needed to appreciate what other teachers were doing and what was happening in other schools.

The INSET series "Teaching for Tomorrow" provided an interface between school and school and teacher and teacher. The programmes provided an opportunity to understand and assess how others have faced and resolved problems. It was interesting that the education authorities involved in the partnership did not simply select their 'show' schools but invited the cameras to schools which illustrated differing approaches to managing change.

Two programmes, then, were about immediate change, but if "Teaching for Tomorrow" was to have a continuing INSET value then the series had to address longer-term concerns. The education authorities advised that teachers needed to think about their teaching methods. They identified widespread concern about classroom management, about discipline, about gender issues and about coping with a multicultural population.

Filming in several schools, the programmes were able to feature teachers who voiced, very openly, their apprehensions as well as their positive ideas. For teachers using this series this frankness on screen encouraged them to exchange experiences with a high level of constructive personal criticism. At training meetings where the programmes have been used it has been very noticeable how quickly teachers involved themselves in discussions and discussed their own performance.

Successful production of the series had to be supported by careful marketing. ITV Schools would transmit the series and the eleven participating authorities could make copies to distribute to their own schools. This still left markets amongst the other education authorities in the country. Yorkshire Television has a video enterprise division and a successful schools' video catalogue and sales were sought and gained through these.

By the time "Teaching for Tomorrow" had been transmitted, and had received high praise from users and educational reviewers, new INSET needs were emerging. The need for general training materials was supplemented by calls for videos which would give help with specific curriculum developments in key subjects. The National Curriculum Council, now well established in its task of reshaping education, was ready to finance the production of videos. Yorkshire Television secured contracts to produce and transmit three videos on developments in maths and three for science and to support these with teachers' booklets.

The changes in mathematics and science were considerable. To many teachers they would be threatening, for these are two subjects which have been very traditional in their teaching methods. The change would involve moving towards more active learning and six television programmes would have to promote that approach.

Production involved another form of partnership. An advisory group of subject specialists would work with the Yorkshire Television production team who would, in turn, consult with the National Curriculum Council. There would be close and continuing editorial consultation to avoid the problems of conflict and editorial veto.

The six programmes were designed for use by small specialist groups and free copies of the support booklet were sent to every secondary mathematics and science department in the country. Case studies were chosen to illustrate ways of introducing new schemes of work, new styles of teaching and how to check pupil progress. If they were to succeed, the programmes would have to motivate enthusiasm for change and illustrate specific ways in which classroom practice could be improved.

Television can tackle those tasks particularly well. It's not only that images of schools highlight practical issues and the voice of experts can lead to questioning, but on screen case studies can reflect individual experience in a way that invites discussion. A teacher may well openly evaluate their own performance in a way they would not do in the more 'confessional' atmosphere of a department meeting.

If, only two years back, INSET seemed a new and unsettling development then today, both in schools and on educational television, it is an established practice. How best to achieve this training and retraining continues to be a matter of debate but we have moved away from the broadly targeted material which explains the structure of the new curriculum and are now identifying groups of teachers who need rather more specific help.

Central Television, in a recently transmitted series, aims to help primary teachers deliver their English, maths and science and to tackle such issues as the involvement, in schools, of parents and governors. The programmes address those management issues which increasingly concern classroom teachers.

But even more specific needs must be met. A teacher using a new reading series, "Readabout", may feel that exciting stimulus material for pupils requires new teaching methods. Programme booklets can offer suggestions and advice but more immediate, and perhaps more effective, is an introductory programme to the series which explores a variety of ways in which the programmes might support learning in the classroom.

No curriculum development is static, so it follows that training of teachers for the years ahead is really a matter of continuous retraining. In the first months of change, the large five or ten programme series was a very effective method of addressing national issues, but how can broadcast television meet the needs of smaller educational audiences with far more tightly defined concerns. Can large investment, even by partnerships, be made in material which may have a relatively short validity? The curriculum developments about which an English teacher worries today may be very different from the concerns that will be top of their agenda in twelve months' time.

Our response must be to maintain a variety of methods of delivering INSET. There will, from time to time, be major national needs of concern to all teachers; the introduction of Information Technology was such a concern. For such awareness-raising a substantial television series will have a particularly effective role. For more detailed needs a single video may be a better answer, for instance to a question like "How can I use information technology in the exploration of literature?". It is also true, of course, that as schools become more familiar with the whole process of INSET they will be more sophisticated in the demands they make of resources. Television must respond to this in the approaches to learning which it adopts. If it fails to keep pace with change, or lacks insight of current classroom practices and concerns then television could quickly lose its INSET value.

Angela Jenkins

A Welsh Teacher's Secondment to a Televisison Station and a Staff Development Unit

A secondment

In 1987 Gwent Education Authority had initiated the idea of a teacher secondment to HTV, the independent television company in Wales. Its purpose was to create links between HTV and schools, to encourage the use of broadcast media and to provide an opportunity to feed back ideas to the programme makers and keep them informed of the changing nature of the curriculum.

My first aim as education media liaison officer was to bridge the gap between schools and television. I found that teachers were receptive towards my role at HTV because I was one of them; "the media" are often seen as glamorous, elitist, and inaccessible to outsiders.

My entry into educational broadcasting conveniently slotted into the programme planning schedule at HTV. "Looking Forward – The Environment", a secondary school series, was being transmitted in January 1988. It was an important part of my job to promote education programmes. As my brief included every local education authority in Wales, the task of visiting 230 comprehensive schools before Christmas seemed daunting. I decided to organise two conferences in North and South Wales to launch the series. The 100 teachers who attended heard speakers on education, media and the environment, and saw part of the series. They felt that the series would be useful in school and were enthusiastic: "It was stimulating and reassuring to find that people in the education department of HTV really cared about those of us who are at the receiving end of their programmes".

Evaluating the effectiveness of a series and making suggestions for new programmes based on classroom research were important aspects of my job. I watched lessons based on these programmes at a variety of schools and listened to comments from teachers and pupils. And the pupils do not always agree with their teachers on the value of a series.

During one of my location visits, I watched the presenter of "Looking Forward" take off in a hot air balloon in Bute Park to complete the series. It was fascinating to participate in every process of production, such as watching "rough cuts" of programmes to discuss their content. And my professional experience as a teacher benefited the production team.

Harry Secombe's resonant voice grew louder as I entered a small chapel in Brecon Cathedral to watch some of the filming of the "Highway" programme. The riggers had fitted the camera dolly on to a track to prevent any jilting movements made by the cathedral's uneven floor. It was revealing to witness the practical constraints of the production team on location as it gave a deeper understanding of the constructed nature of the medium. Working alongside reporters in the newsroom, I became more sympathetic to the external constraints imposed on them.

The computer series "It's in Wales" was being filmed in a variety of locations – the children became accustomed to the presence of a television crew in their classroom and participated in the problem solving exercises without inhibitions.

Visiting ITV education departments throughout the country and viewing some of the rich store of materials available to teachers in broadcasting was an eye-opener; these resources are often underexploited in schools. Scottish educational broadcasters in particular have a cohesive liaison between their three ITV companies, the BBC and the Scottish Education Department.

Another important aspect of my secondment was to help schools identify their needs in making proper use of broadcast materials. The comment: "I'm on the third floor and the TV is on the first" needed to be addressed. Directors of education were visited to increase awareness of the need for more funding of audio-visual equipment in classrooms and to discuss recommendations that had arisen from classroom research and conference workshops.

The following academic year I was seconded to the County Staff Development Unit in Gwent Local Education Authority in Wales where my brief was to encourage schools to make a more effective use of educational broadcasting.

Primary school teachers' working party

Whilst visiting schools during the first weeks of my second secondment it became evident that it would be worthwhile to set up a working party of interested primary school teachers to produce guidelines on educational broadcasting. The main aims of the guidelines would be to highlight the importance of schools broadcasts and to identify ways of organising and managing these resources. During my initial visits to schools I found that where schools had adopted a systematic organisation of educational broadcasts, it led to a better use of them in the school curriculum.

Gwent Primary Schools Broadcasting working party was established in the spring of 1989. A network of teachers was brought together who had a keen interest or expertise in their use of education broadcasts. As the working party was made up of practising teachers, we used our varied teaching experience to form the basis of our guidelines as well as including my research whilst visiting schools in Gwent. The Welsh HMI report "A Survey of the Use of Educational Broadcasts" published in December 1988 made constructive suggestions which were highlighted in these guidelines.

More intensive use of educational broadcasting

Educational broadcasting is still a free and accessible asset in British schools, so we wanted to give valid reasons for using this facility more. Here are some of them:

1. Broadcasts can provide information not readily available to the teacher and in a way that cannot be achieved in the classroom.
2. Broadcasts provide a valuable aid to staff who are non-specialists in certain core and foundation subjects, and use of the resources may lead to greater confidence in these areas.
3. Producers are able to draw on music, drama, speech, film, still picture, the voice of the expert, professional story-tellers, actors, playwrights, artists and musicians.
4. Broadcasting for schools is in a constant state of evolution, reflecting new strategies in education and influencing changes in education practice.
5. Broadcasts are particularly valuable in small schools with limited resources and especially in those schools situated in remote areas.
6. Broadcasts are capable of creating an atmosphere, stimulating imagination and provoking ideas.

A guide for effective use of school television

Our next stage was to offer a structured guide to using schools broadcasts effectively in primary schools. Few schools possess a policy on educational broadcasts and we believed that it was essential to set up a procedure which could be implemented in all schools. The published format is as follows:

1. The starting point for considering the use of schools broadcasts must be the overall curriculum philosophy of the school.
   Broadcasting provides a rich resource for teachers where they have programmes available to integrate into schemes of work. Teachers should have access to a variety of programmes relevant to curriculum areas they plan to cover as they have access to books, charts, slides, materials etc.

2. It is crucial that the headteacher has a commitment to the educational value of broadcasts.
3. Each school should examine its existing practices in relation to broadcasting and then tailor a school policy on educational broadcasts which meets the individual needs of each school.
4. A member of staff, e.g. a media resources co-ordinator, needs to be given the responsibility of implementing the schools broadcasting policy.
5. A record of evaluation after using broadcasts is a valuable point of reference for the busy teacher.

An evaluation card can include the relevance of the resource in the classroom teaching situation, the children's response to the programme and the follow-up work which has been initiated by the programme. The style, pace and tone of the programme are also important, as they influence the level of interest of the pupils watching or listening to the broadcast. A sample of an evaluation card was published in the guidelines..

The importance of pre-recording

We felt that the most crucial issue in using educational broadcasts effectively was to pre-record schools broadcasts. Although most primary schools own video recorders, recent surveys (e.g. Moses and Croll, 1990) and school visits have shown that the majority of primary schools use educational broadcasts "off-air". As well as devoting a whole page slogan "Pre-recording is vital" to the guidelines we highlighted twelve reasons for pre-recording schools broadcasts.

1. Teachers can re-use programmes when they fit into the needs of their curriculum so that schools do not have to dictate to the time-tables of broadcasting organisations.
2. Schools are able to preview programmes and be selective in choosing suitable programmes to integrate into the curriculum.
3. A programme can be chosen from a series for a specific purpose.
4. Sequences can be chosen from a programme to make a particular point.
5. After a whole programme has been used, key sequences can be replayed to reinforce a topic. Children can interact with the material, questioning and challenging different points through the teacher.
6. Pupils can observe visual material more closely, by using the Freeze Frame facility. Also the use of the pause button in television and radio allows teacher/pupil participation.

7. In science and maths broadcasts the pause button can be used before the methods and procedures are shown for solving problems.
8. Many programmes now recommend taping schools broadcasts in their accompanying support materials, as their programmes are designed so that the pause button is used.
9. Particular aspects of a programme can be examined critically in subsequent viewings, i.e. to discuss dialogue, setting, characters or to explore a critical awareness of the programme for media education.
10. The teacher is able to organise small group viewing and listening.
11. Teachers and parents can preview programmes contributing to sensitive areas of the curriculum, for example, sex education and multi-cultural education.
12. School broadcasts and INSET programmes can be used for school in-service training.

A plan for integrating educational programmes

For the next stage we decided to give a step-by-step plan of organising education broadcasts once a school policy was drawn up and a media resources co-ordinator had been appointed. The section "Making a Start" in the guide offers practical advice on integrating British education broadcast programmes and support materials in schools. We also included additional useful strategies already practised in some schools and offered their methods as a discussion point.

Some schools identify an area of the curriculum they believe needs to be developed. For example science programmes in different series are recorded to support this curriculum area. The advantage is that the programmes can be used for school INSET courses. Teachers are better able to develop the curriculum area with good support resources. The disadvantage is that other broadcast series may be underexploited.

The guidelines also include different systems of recording in schools and their advantages and disadvantages. Headteachers may also want to explore the idea of setting up a viewing area for schools television or facilitate a mobile television system; the pros and cons of both methods are discussed in the guidelines.

There is a small band of teachers who catalogue and cross-reference their media resources. I found that in schools where this practice takes place school broadcasts were used selectively and integrated into the school curriculum. In contrast, some schools watched a whole series of programmes which were not always part of the current topic being taught in class. Sample diagrams of one method of cataloguing information were also published.

Copies of the guidelines were sent to every primary school in Gwent. Schools were able to use the guidelines as a point of reference to organise a more effective use of schools broadcasts.

The BBC and ITV regularly revise and update their programmes for schools. Despite the wealth of material which is available, schools are often unaware of how to make effective use of this resource. The advent of General Certificate of Secondary Education has led to a more pupil-centred approach and there is an increased demand for additional learning materials. If we consider the amount of money spent on the production of educational broadcasts and the amount of research done to ensure their relevance to the curriculum, then broadcasting becomes a resource we cannot ignore.

While I was working at the HTV Education Department, it was reassuring to find that companies show a commitment to the creative business of making programmes and seek advice from educationists who have a major contribution to make in curriculum development. We hoped that the primary schools broadcasting working party had increased awareness of the value of educational broadcasts, as they provide alternate and complementary ways of presenting a subject and "bring into classrooms personalities and voices, scenes and places that could never appear there by any other means. They enrich enormously the resources available to teachers and children."

Uwe Franke

Experience as a Teacher-Author with the Hessian School Television

One of the roots of Hesse's school television, which was 22 years old in 1991, goes back to the 1968 increase in television licence fees, which was linked with the condition that the Hessischer Rundfunk should become more involved in matters of education. Support also came from the endeavours for reform being stepped up at that time in the field of education: at the end of the 60s the vocational school was "discovered" as a school. The Hessian Ministry of Education enthusiastically agreed to the Hessischer Rundfunk's proposal to organise school television.

Hessian school television was thus born, an exemplary context model in the educational landscape of the Federal Republic of Germany, as the target group of the programmes, which initially only dealt with political and economic subjects, is the vocational school in Hesse. I should like to explain this model from the point of view of the 'teacher-author'.

Specialisation in the area of vocational schooling had its reasons: the Hessischer Rundfunk (HR) was one of the last ARD stations to begin producing and transmitting school television. Because of its limited financial means it was unable to cover the whole range of schools and therefore decided, after prior consultation with the Hessian Ministry of Education, to tailor a school television programme specially to the needs of vocational schools, to an area therefore that up to then had never been taken into consideration in any of the school television programmes that existed in the Federal Republic.

A servant with two masters – the teacher-author

The structural elements of the Hessian school television are the three components "programme", "support material" and "lesson". The link between them is the teacher-author. It is she or he who, with his or her knowledge of the target group and of the guidelines, suggests relevant subjects for turning into programmes, draws up the exposé (the draft script) for the programmes, works out the support material and then tries to make use of both in the lessons.

This teacher-author is, so to speak, "a servant with two masters", namely the Hessischer Rundfunk and the Hessian Ministry of Education. He draws up the draft scripts for the Hessischer Rundfunk and the material to accompany them for the Hessian Ministry of Education.

Since working as a teacher-author calls for very great personal commitment and takes up a lot of time intermittently, both the Ministry of Education and the Hessischer Rundfunk are always looking out for new teacher-authors. Those colleagues who began at the inception have long since made way for younger ones who only know from what they have been told by others about the general release from lessons at one time – in the "founding phase" even half-yearly exemption from teaching obligations.

My work as a teacher-author began in the 1978/79 school year. I had just taken up my first post at an industrial vocational school in Darmstadt. My main subject is building, which entails giving theoretical instruction in all jobs connected with the building trade. I am also qualified to teach civics (politics and economics) and German.

As I was known among my colleagues for making extensive use of the media in my lessons and for my commitment to social studies, one of my fellow teachers asked me at the end of 1978 whether I would like to work as a teacher-author for the Hessian vocational school television. She had been asked by a representative of the Ministry of Education to find suitable teachers at school as authors for school television programmes on the subject of "Social Welfare".

Following an interview at the HR School Television offices which seemed to go well, and after obtaining the consent of the Hessian Ministry of Education, my "career" as a teacher-author began. This dual consent from the institutions responsible for Hessian school television – broadcasting corporation and Ministry of Education – not only to the teachers working on it but also to the content of the programmes is a typical feature of Hessian school television. Once relevant subjects have been agreed upon, the Hessischer Rundfunk has a free hand in turning them into programmes, and it alone has complete responsibility for doing so.

The teacher-author is given an author's contract by the Hessischer Rundfunk for drawing up the draft script for the series being planned. This lays down a fee of, currently, DM 2,600 per film, which is divided by the number of teacher-authors cooperating, as a rule two. In the case of contents relating to their profession teachers may also be engaged as consultants. They then receive a consultancy contract and a consultancy fee of, currently, DM 500 per film.

A producer employed by the Hessischer Rundfunk, who has been selected by the production department for his or her ability to cooperate with the teacher-author, turns the draft script into a programme. Producer and teacher meet in a whole series of sessions to slowly align their ideas for putting the contents into the programme. It is often necessary to go on research trips. Here the principle applies that the more careful and detailed the preliminary considerations are, the quicker and less expensive is the creation of the final product.

It is certainly useful and helpful if the teacher-author can attend the filming; consultants are obliged to do so. It is not only because here a large number of photos can be made for the support material, but also because, from the point of view of the user and with regard to the target group, there is also a chance to express a wish for certain shots and details which are didactically necessary.

Taking part in the filming only becomes difficult if it does not happen to coincide with the holidays, since it is hardly ever possible to be released from the lessons. Up to a certain point compromises are possible with the filming dates, especially in the case of commissioned productions, i.e. when the Hessischer Rundfunk commissions a private company to produce a series of programmes.

Unlike a "house production", or internal production, a commissioned production is flexible with regard to the dates for filming. In the case of a house production the filming dates are fixed one year in advance and a film team is allocated to it. But fixing a shooting date so far in advance can also give rise to additional difficulties: when producing a series like, for example, "Alternative Sources of Energy" the sun had to shine precisely at a fixed point of time when the film "Solar Energy" was being shot.

What is interesting in the production of films is the team work at constantly changing venues (film, animation, cutting etc.). After that the teacher-author turns into a lone fighter, into "the brains behind the scenes": drawing up the support material is more demanding work.

For doing this activity the Hessian Ministry of Education gives the teacher a contract in which the deadlines for the different tasks are precisely laid down: from drawing up the information sheet for the school orders and the index of sources for obtaining permission to publish to handing over the manuscript one month later. This is preceded by working out and discussing the manuscript with the Hessian Ministry of Education, talking over the layout with the printers, correcting the galley sheets and the giving the final go-ahead – of course, always with the agreement of the Ministry of Education. (For my work on the support materials for the revision of the series "Alternative Sources of Energy" in 1986 I received DM 3,800 as sole author for two accompanying booklets of 250 pages in all.)

As a rule, about 18 months elapse from the "idea" to the transmission of a series with usually four programmes. During this time the work often includes commentary texts and trick story boards apart from the draft scripts and the support materials. With a full teaching programme (25 lessons a week) I had a work load of 70 hours a week on average in the first two years of my activities as a teacher-author, taking into consideration the four relief lessons a week that were granted at that time and the school holidays. Since the 1980/81 school year I have reduced my teaching duties by one-third per week for reasons of "labour market policies". This resulted in an enhancement of my job satisfaction.

The support materials are distributed to the vocational school classes involved free of charge, i.e. every pupil at a vocational school in Hesse can receive a free copy of the relevant support material. Collective orders for the support material are placed by the vocational schools every six months at the beginning of the current semester. The appropriate equipment and organisation of the schools make it easier for the teachers to use the integrated media in their lessons.

The school television programmes give the pupils a very strong motivation and are suitable for starting out on new teaching units. In their use they have the same value as other audio-visual means of instruction such as educational films, slides or overhead transparencies. Their advantage is that they provide up-to-date audio-visual material, they can describe complicated processes in moving pictures and bring into the classroom reality and learning venues that are difficult to reach. All this brings the subject to life in the lesson.

Deeper questions and details are then explained using the support material. The integrated media allow every way of structuring the lesson: be it partner, group or project work or more traditional forms.

I find it very appealing as teacher-author to follow the development of the films and support material from the idea to the feedback from their use in the lesson. For it is precisely the immediate reaction of the pupils to the films and support material which the programme producers otherwise lack.

The contents

Since the beginning of Hessian school television the main point of emphasis of the contents has been shifted by an expansion of the subjects. Whereas at first the programmes were exclusively devoted to politics and economics, quite soon subjects from religion, German and ecology were added to them.

Today the programme is rounded off by films specially conceived for individual vocational areas (e.g. "Building down the Centuries", "Wood Technology", "The Art of Printing Today", "Colour"). An English language programme is intended to support the endeavours of the schools to provide a two-year English course for apprentices and trainees who have successfully completed the upper division of the elementary school and are preparing for the journeyman's examination.

The series "Alternative Energy Sources", first transmitted in the 1981/82 school year, introduced environmental subjects into the programmes of the Hessian school television, and further subjects were added with the series "Building Protection and Renovation". At the beginning of 1985 the series "Ecology" and "The Dying Trees", at the beginning of 1987 "A Local Reporter on a Hot Trail" and the revised series "Alternative Energy Sources" and in April 1988 "The Forest as an Ecosystem" and "Ecological Alternatives in Agriculture" were each transmitted for the first time. At the beginning of 1989 "The North Sea Mud Flats as an Ecosystem" and at the beginning of 1990 a new version of "Alternative Energy Sources" (with the films "Power-Heat Coupling" and "Solar Storage Technology") were on the programme, which were expanded at the beginning of 1991 with "Stirling Engine" and "The Zero Energy House". As from April 1991 a huge project of six 30-minute programmes began with the series "Gene Time".

In the 1988/89 school year the broadcasts transmitted were used by almost 8,500 classes. On average each series was seen by 380 classes, and 30,000 copies of the support material for "Alternative Energy Sources" was issued (according to the Hessian Ministry of Education).

All in all, there has, therefore, been a clear increase in programmes on the environment, which is to be continued in future planning: in the near future, i.e. for 1992, the series "Environmental Protection" (earth, air, water, fire) and "Alternative Energy Sources: Transport" are planned; a series on "Ecological Building" has also been mentioned.

Hessian school television can be received over the transmitters of Hesse Three in the morning between 8 am and 10 am from Mondays to Fridays, the same programme on each day:

8.05 am: politics, religion, ethics, sport, information sciences
8.35 am: economics, ecology, English, German
9.05 am: vocational subjects
9.35 am: "Between the Headlines"

Each programme is transmitted from 5.40 to 6 each afternoon on Hesse Three one week in advance to give teachers a chance to prepare their lessons properly.

Because of these advance transmissions in the afternoon it is still possible to use a broadcast directly in the lesson. Recording the series allows one – which was not the case earlier – to work more flexibly with the programmes, to integrate them at any time into the course of the lesson and project work intended for the pupils.

These advance transmissions in the early evening programme are not called school television. As the abundance of letters on the individual series proves, quite often the general public avail themselves of this transmission time.

The reactions to two new productions in the series on alternative sources of energy were especially strong in spring 1991: "The Stirling Engine" and "The Zero Energy House". The Hessischer Rundfunk and the Hessian Ministry of Education received well over 600 letters requesting further information on the subject of "The Ecological Zero Energy House", which they passed on to me as the author of the series asking me to reply.

Cable television has made the reception of the Hessischer Rundfunk possible far beyond the borders of Hesse, as is proved by letters from North Rhine-Westphalia, Baden-Württemberg and northern Bavaria.

Whether the Hessian school television model, unique in its construction, will actually live to witness its "silver wedding" is a matter of conjecture. As in every good marriage, the two partners Hessischer Rundfunk and the Hessian Ministry of Education have so far gone through "thick and thin". But at the moment there is a storm brewing up: the HR's budget for school television is to be cut by 80%, and the Hessian Ministry of Education is worried about its finances. The DM 300,000 which the Ministry paid to the HR and the funding for the support materials is threatened by cuts. A sad development, when the continuation and expansion of school television would be sensible and desirable in the interest of the general responsibility of schools for providing education.

Monika Herlemann

Programmes for Dyslexic Children – A Special Education Teacher's Initiative

At the beginning of the eighties the Bayerischer Rundfunk produced the 12-part series "How Rübe lixes up the metters" or "How Rübe mixes up the letters".[1] The target group was 6 – 8 year-old children beginning to read; and within this group it was especially children who showed any particular difficulties with reading and writing. The series has in the meantime been repeated several times. Rübe, its central figure, could always be certain of the approval of his audience and sympathy for his problems.

The idea

The idea for this series of programmes emerged at a working meeting to which the Bayerischer Rundfunk had invited editors and representatives of different types of schools. The subject of discussion was the production planning of school television which should be orientated to the actual needs of the schools.

In this connection the special question arose for the entry level of the primary school (1st and 2nd classes) as to whether school television can be efficient not only in imparting subject matter but also in overcoming certain learning difficulties, whether it can be something like a psychological support and can create new motivation for learning. The first attempts at reading and the dyslexic tendencies frequently connected with them were given as a concrete area requiring attention: children learn to read in the course of the first school year. To do this they have to learn letters some of which only differ with regard to their spatial position, but which in their structure are identical. Examples are the letters b/d/p/q, which consist of the same elements, i.e. a stroke and a circle; the difference lies in their spatial arrangement.

Apart from that, children have to learn letters which although not identical in their structure are very similar: examples are the letters n and m. In both cases an ability to differentiate with visual accuracy is called for. In addition to this, an accurate ability to make precise acoustic distinctions is required when German children have to learn to allocate very similar sounds to the proper graphic signs: examples are b/p, d/t, g/k, i/ü, or f/w. A relatively large number of children experience for a while visual and/or acoustic difficulties in distinguishing these letters during the process of learning to read.

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[1] Translator's note: Original title of the series is "Wie Rübe die Wechstaben verbuchselt".

But in almost every class some children remain who do not eliminate these uncertainties, have extreme difficulties in learning to read and who transfer these problems into their elementary spelling. The whole learning and achievement area of reading and writing increasingly becomes for these children a field in which experience of failure gives rise to fears of failure and vice versa. Their performance is reduced further still in this vicious circle. It is a psychological phenomenon.

In the working meeting mentioned above the hypothesis was proposed that it was precisely television with its audio-visual possibilities that should be in a position to offer a visual and acoustic differentiation training for children packaged in such a way that new learning motivations are created for a problematic learning subject.

The 12 programmes in the series were produced in the course of time, after a viable concept for such a training had been found.

Training area	Programme	Subject	Training area	Programme	Subject
Visual differentiation training	I	b – d	Acoustic differentiation training	VII	g – k
	II	b – p		VIII	d – t
	III	b – d – p – q		IX	b – p
	IV	ei – ie		X	e – ä
	V	m – n		XI	st
	VI	tsf – l – j		XII	sp

The psychological concept

The psychological concept of the series is based on a principle known in learning psychology which says that subjects felt to be problematic for the learner should be made intelligible by a holistic approach, e.g. by learning with all one's senses, by emotion and provocation and not just by means of reason.

Rübe, the little man between reality and fantasy, was thought up as an identification figure for the children. He is at the centre of every programme, and in each he has a certain problem situation to overcome. He can only succeed in doing this if he comes to grips with 'his' letters in the proper way. But Rübe 'lixes the metters'. Wailing at his task, awkward but sometimes sly as well, he grapples with them, he lives out aggressions, is happy when he finds solutions and, generally speaking, represents the situation of his young viewers. Often, however, the latter are left with a slight feeling of superiority, and this breaks down their reserve and helps them to participate actively in solving Rübe's letter problems (see also the section "Special structuring principles").

The didactic concept

The didactic concept of the series was worked out taking into consideration the prescribed time available for each programme. This was just under half an hour, a period of time which in some cases may well be too long for 6 – 8 year-olds to concentrate and be receptive. From the point of view of the school a concept had to be found, therefore, which achieved the particular aim of a programme – the visual or acoustic differentiation of two similar looking signs, or similar sounding sounds – within the given time limits and without overtaxing the pupils.

Further aspects of a didactic concept resulted from when and where the programmes were to be used in the lesson:

- It should be possible to use the individual programme for the whole class within the framework of a consolidating phase in the first reading and elementary writing lessons, which are concerned with the comparative consideration of sounds and signs.
- It should be possible above all to use the programme within the framework of an internal differentiation of the lesson:
  groups of pupils with special problems in the learning areas already familiar to them should be able to work as independently as possible with the help of the programmes.
- The use of a programme should relieve the teacher and release him for work with other groups of pupils.

The following points were given particular didactic consideration in planning the structure of the series:

- Introducing a clear rhythm – which the child can grasp independently – of motivation and working sections into the individual programme;
- the possibility of interrupting a programme so that it can be dealt with in greater depth in the classroom;
- support material on which this further work can be based (e.g. work sheets that can be copied from the monthly school television magazine);

- active participation, as varied as possible, of the children during transmission through the appropriate encouragement from Rübe (see also the section "Special structuring principles").

Structure plan

Looking at the psychological concept and the didactic requirements together gave rise to the structure plan outlined below. It was strictly adhered to in the production of all twelve programmes.

Entry phase:
The visual or acoustic differentiation problem is derived from a short acted scene. In programme III, for example, it is to be distinguished between b/d and p/q. Armed with a big frying pan, Rübe sets out to hunt an 'enemy', who, in his opinion, comes up far too often in the alphabet, causes trouble when reading and who should therefore best be fried, so that he disappears altogether. Rübe finds the letter and fries it. As he does so the sign disintegrates into its constituent parts – a stroke and a circle.

Training phase:
In conversation with the viewer Rübe allows himself to be convinced of the necessity of this sign. He promises to repair it, if anyone could help him, i.e. to show him tricks, to learn how to distinguish the sign better in its various spatial positions. Rübe and the viewers cooperate to find out and use helpful features to make it easier to differentiate the graphic signs involved.

Three different tricks are found that structure the training phase into three sections. Each trick is at first worked out, then used in play, and finally practised with the help of the support material for consolidation purposes if the programme is interrupted.

To sum up, the structural principle of the individual programmes can be described as follows: Rübe's particular problem constitutes, as a scene, tension from the beginning to the end, which is great fun for the viewer. 'Tricks' are built into the scene which bring the problem nearer to its solution and are registered by the viewer as aids to orientation, i.e. they are learnt.

Special structuring principles

From the above it has already become clear that the principle of activating the viewer was bound to play a major role in the detailed planning: opportunities for the viewers' own activities are in keeping with the holistic approach of learning psychologists to make understood in all possible ways the subject to be learnt. They also interrupt the mainly passive-receptive attitude of the viewer to the medium and help the 6 – 8 year-old child to keep up his concentration for a period of about half an hour.

Two fundamental structuring principles were laid down:

1. Opportunities for direct contact between Rübe and his viewers should be created. A kind of dialogue between Rübe and the viewer and vice versa should be possible.
2. In addition to a linguistic activation of the children in this way, their need for physical activity should be used to achieve the learning aim.

The first principle was realised in the course of production in two different ways. At first it was believed that viewers' reactions had to be guaranteed by using children's voices to accompany the programme as representatives, so to speak, of the audience. They provided remarks on what was happening, expressed opinions and reacted cheerfully or critically to Rübe's activities.

Later these off-screen voices were no longer used because it turned out in the first programmes that they were really quite superfluous. The children entered spontaneously into 'dialogue contact' with Rübe when he made the appropriate requests or gave well-considered stimuli. Off-screen additions to the programme turned out to be confusing and more of a hindrance than a help.

The second principle could be very well realised in connection with forms of exercise of a playful nature. Through activities ranging from keeping their eyes closed while guessing, clapping, stamping, holding their breath, nodding, answering in the negative by shaking their heads to mouthing words or speaking with exaggerated clarity and reading and writing in the air, Rübe had ample opportunities for actively involving his viewers and questioning them on their opinions and the results of their work.

Production conditions

At the beginning of the production traces of scepticism remained with all those involved in the matter of whether it was possible to establish such close cooperation between a central television figure and the children watching. This fear turned out to be unfounded after the first programme had been transmitted. In a similar way to the reactions in a Punch-and-Judy show, the children showed no inhibitions in answering Rübe's questions, they helped him when he asked them to, and they warned him. The cooperation worked.

It was thus possible to begin production on a series according to a complicated concept that had not been practised before. What was of decisive importance here was that by a happy coincidence a team had met up whose members set about turning this psychologically and didactically complicated subject into a television series with interest in the matter, with care and patience, each contributing his or her special expertise.

A primary school teacher with experience in dealing with dyslexic children wrote the scripts. For Rübe the services of an actor were obtained who came from children's drama. He quickly grasped all the various small but important didactic points and was able to turn them into play in a subtly differentiated way.

A graphic artist made up the material in the practice sections and created imaginative additions to the acted scenes. He had a feeling for clear presentation forms which, although reduced to their essentials, were made suitable for children by little technical gags.

The editorial board largely gave the practitioners in the team a free hand, and the producers showed considerable patience with regard to the complicated didactic matters required by the script.

Acceptance

As to the acceptance of the series, the following can be said: When they meet him on television, Rübe is for children an identification figure they can sympathise with. They speak about him with a smile, note his problems and can state the differentiation problem connected with them.

It is interesting that the programmes, when first transmitted in the afternoons, were completely accepted as entertainment. The teachers interviewed unanimously agreed that

- the children followed with personal involvement the events which take place on a low key and at a measured pace,
- lively contacts between Rübe and the children arise, making the teacher superfluous for a while, and
- the children could easily follow the line of thought.

The question about the teaching effect of the programmes in the longer term was answered in various ways, ranging from "very useful working material which you can repeatedly refer to even months later" to "nice, but actually more of a sweetie, as they are pure entertainment for the children".

Chapter 4: Support Services for School Television

David Lee

Ears to the Ground: Independent Television's Liaison Activities with the School Audience

The context of liaison

Most television programmes are negotiated within a complex framework of committee advice, individual value judgements, producer inspiration, research, fieldwork and consultation. Liaison binds these elements together by systematically building up contact networks capable of supplying relevant advice and information for the development of new programming. At its most basic, liaison is based on the twin needs of extracting information which will shape future production and of increasing the familiarity of educational audiences with existing output. Its business is essentially that of dialogue and brokerage and its ultimate function to build up a coherent picture of audience reaction together with changes in policy and practice which will affect the nature, identity, content and future development of the overall educational output and of specific series.

The educational product on television has to be not only good of its kind but matched to current needs and circumstances, which can alter all too quickly. Effective liaison is, therefore, the result of close understanding of and sympathy with audience needs and the ability to collate large amounts of random advice into a working brief. Among its immediate concerns are analysis and interpretation of data, public relations and curriculum planning. In educational broadcasting, the liaison service gathers useful information and promotes greater knowledge of the output by addressing a wide range of agencies, providers, facilitators, opinion leaders and other potential audience-gatherers. Its operations are usually carried out by a regionally dispersed field force whose findings are collated and reported back to a central advisory or executive committee.

Since 1957, the two major UK broadcasting authorities, IBA and BBC, have each controlled two parallel and sometimes overlapping liaison services working with pupils, teachers, parents and educationalists. Though such a scale of operations reflects their common concern with the needs of the educational audience as a whole, both organisations essentially carry out much of their liaison activity separately and are responsible to different taskmasters.

This situation has been brought about largely by custom and practice as well as by divergent interests. It is determined, finally, by present and proposed schedules and the historical commitment of each organisation to distinct areas of programme provision. Fieldwork has, of necessity, to relate both to present as well as future output. It must aim, in the first instance, at finding out whether programmes are well used and relevant to the needs of teachers and pupils while also discovering the sort of content, style and approach which will be most appropriately incorporated into "new make".

Thus, at any one time, there will be different sectors, levels and priorities of liaison addressing different areas of shorter or longer-term development within different curriculum contexts. Its operations are, therefore, characterised by range and diversity. Despite recurrent suggestions that the two services might be rationalised or merged, different leadtimes, deadlines and preoccupations have so far denied any possibility of a unified system or masterplan.

ITV and BBC have, however, engaged in exchanges of opinion, sharing of national platforms and willingness to cooperate within certain regional areas – in other words limited, tactical, cooperation rather than joint strategies of liaison or forward planning of fieldwork. Greater scope for cooperation at national level has been found in programme liaison meetings for harmonising the content of schools output as well as in audience research. Both organisations are partners in the national "Survey of Listening and Viewing".[1]

Though it is possible to theorise about what might be feasible within any joint operation, it is salutary to remember that most liaison, by the very nature of planning, must cope with immediate and particular needs. It is always subordinate to the availability of new programming slots and changes within the educational system itself.

Within the UK, these have been both radical and far-reaching. For example, pre-1988, educational broadcasting tended to be seen as a centralised resource in a decentralised and autonomous educational system. It was apparent that broadcast resources were being widely employed though there was no organisational or methodological consensus over their use. Teachers' perceptions of their value and relevance varied immensely.

Though separate curricula existed, in some degree, in the national regions of Scotland and Northern Ireland, a single national curriculum for England and Wales had not as yet evolved. In many respects, therefore, the potential existed for curriculum to be television-led especially in developing areas such as health, environmental and personal and social education. The creation of new and more formalised curricula for all these areas and the transfer of responsibility for curriculum planning and development to the various national and regional councils meant that television had to serve the new priorities and approaches defined by those agencies.

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[1] The Survey of Listening and Viewing in School. London: BBC Broadcasting Research Department.

While such changes undoubtedly gave some of those areas of programming a new legitimation, from then on educational television's role tended to be seen more in terms of matching and supporting national curricula. Whatever innovation took place was within the context of externally devised curriculum planning. What had previously been thought of as a free-range operation became considerably restricted by the need to conform and correlate with these new national frameworks.

These changes of curriculum structure and content have also been parallelled by radical changes within broadcasting and transmission systems themselves. ITV is now in the middle of transferring a schools output produced and broadcast wholly by the Channel 3 network companies to new arrangements whereby the service will be directly commissioned by Channel 4 from different sources and will be broadcast in its own airtime. Such a shift from the largest viewing channel to one intended for minority audiences carries with it considerable implications for relocation, reduction and redeployment of field staff. As we move towards this transfer of responsibilities it might, therefore, be useful to engage in some retrospective stock-taking and to see how the traditional features and remit of field liaison have evolved and are likely to be conditioned by these new circumstances.

Historical background

The first education liaison officers in broadcasting were those appointed in the 1930s for BBC Radio in the wake of the "Kent Inquiry". Their job was largely act as observers in classrooms and to report on the impact of sound series. They were to be "the eyes and ears of the producer".[2] Their advent effectively created an operational model with certain significant and recurrent features, heralding an era in which, as Asa Briggs remarked, "broadcast-taking was treated as seriously as broadcast making and the school audience was studied continuously and methodically".[3]

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[2] Kenneth Fawdry: Everything but Alf Garnett: A personal view of BBC School Broadcasting. London: BBC 1974; p. 117.

[3] Asa Briggs: History of Broadcasting in the United Kingdom: Volume 4. London: OUP 1979; p. 826.

The field force of officers for carrying out such an undertaking is usually called into being when commissioned by some pre-existing advisory structure. Since their appointment stems so closely from expressed concerns over the flow of ideas and information between producer and consumer, their primary task has always tended to be appraisal and evaluation of programmes and policies and feedback. The seeking out of such data and its subsequent collation gives direction and substance to committee deliberations and policy decisions as well as identifying effective uses of broadcasting in schools and teacher training. Education officers' findings help to set agendas for future development both in specialist subject areas and in larger curriculum matters, thus requiring them to maintain constant contact with various educational audiences and often to combine their own "action research" or occasional surveys with data provided from other sources. For that reason, they have often tended to work in close association with national and regional research projects and to synthesize policy from wide and frequently disparate views and advice. This is often pioneering work!

They have also the complementary function of promoting understanding of schools programmes themselves and their underlying educational philosophy through a host of associated "narrowcasting" activities – direct presentations using video clips, compilation tapes showing highlights from the output and good classroom practice, training videos, back-up materials and notes, strategies and tips for teachers, school-based workshops, and collaboration with a range of INSET agencies.

When the first television service for schools in the UK was inaugurated by the independent company Associated Rediffusion on 13 May 1957, it was inevitable that its support services should be, in some degree, influenced by the successful and established patterns of working which had been tested by the BBC Radio field force. These had been revised after the reconstitution of the School Broadcasting Council in 1947, and, when set out diagrammatically by Richmond Postgate in 1948, showed how much reliance had previously been placed upon the centre/periphery model of an executive policy committee serviced by a field force of subject specialist officers.

How this came to be parallelled in ITV was soon to be seen. In 1954, the new Independent Television Authority (ITA) set up a Children's Committee to examine the possibility of television broadcasts aimed at schools. In response the London company Associated Rediffusion proposed in 1956 an initial weekly schools' output of 2 ½ hours of programming for pupils over fifteen.

In order to comply with the Authority's insistence that any programmes intended for classroom use should be the subject of previous consultation as to purpose, level and content with qualified representatives of teachers' organisations and educational authorities, two further in-house committees were set up. These were the Educational Advisory Council (for advice on general matters) and the Schools' Broadcasts Committee (which referred specifically to the school curriculum).

The first transmissions in summer term 1957 were received by a mere 80 schools. Even by 1960, numbers of watching schools had grown to little more than 1000. In the meantime, however, Enid Love of the BBC had been appointed Associated Rediffusion's Head of School Broadcasting and two Schools' Liaison Officers had also arrived in post to be joined by similar appointments in Scottish Television and Tyne Tees as the network expanded.

These worked firstly in loose cooperation, by setting up a pattern of school visits and by reporting in extensive detail on broadcasts seen in schools. Their enquiries embraced viewing conditions and children's responses as well as teacher preparation and follow-up. At one remove, the Schools' Liaison Officers also set up viewing panels of teachers for each series, gathering responses from questionnaires and direct visits. This information, in combination with evidence gathered from conferences, teachers' meetings, press reports and unsolicited letters was used to build up detailed dossiers of the way in which series were being received and used.[4]

It is worthy of note that these education officers liaised not only with schools and teachers, but with their colleagues in the new networking companies, with the ITA's newly appointed Educational Advisory Council, and with their counterparts at the BBC. With the latter, their major activities consisted of:

- joint participation at teachers' meetings;
- exchange of advance plans to avoid possible overlap in programme content;
- partnership in a national survey of broadcast use in schools carried out by the BBC School Broadcasting Council.

It was a thriving time for such activities for, as the official report was later to note: "The Head of School Broadcasting, the Schools Liaison Officer, and the Education Officers are receiving an increasing number of invitations to speak about School Television at Training Colleges and meetings of teachers organised by Universities, Local Authorities, the National Union of Teachers' Visual Aids Groups, and Parent-Teacher Associations. The School Broadcasting Section has recently received its first invitation to undertake the major part of a Local Authority's summer school on School Broadcasting."[5]

Many requests were also received for an introductory film in 16mm colour entitled "Television in School" which was available on loan to teachers wishing to introduce the new resource.

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[4] Associated Rediffusion: The First Four Years. London 1961, pp. 10 – 11.

[5] Associated Rediffusion: Report on School Broadcasting during 1959 – 60. London 1961, p. 11.

The report cited mentions a wide series of ad-hoc meetings convened for the purpose of allowing producers and educationalists to discuss audience needs. These had been reinforced by national screenings of schools output to chairs of Education Committees, Chief Education Officers, Principals of Training Colleges and other prominent people. Two Ministers of Education had also come to the studios to discuss the potential of the new service.

As a portent of things to come, programme sales abroad and increased enquiries from other countries had, meanwhile, set up a dimension of foreign liaison and of sharing of skills and interests which has lasted until this present day. These activities were formally summarised in the above-mentioned Associated Rediffusion's "Report on School Broadcasting" in the following way:

" i Schools Television is established in at least 8 other countries and enquiries about our programmes have been received from many more.

ii Representatives of broadcasting and educational organisations from many foreign countries have visited Television House to gain information.

iii Enquiries about the supply of the Company's school programmes have been received from Australia, Brazil, Hong Kong, Japan, Nigeria, Southern Rhodesia and Sweden. The Australian Broadcasting Commission has transmitted the whole of the "Story of a River" series.

iv The Canadian Broadcasting Corporation has bought one copy of "Television in School" and the British Council thirty-three for foreign distribution. The Company has lent or presented five further copies to foreign countries.

v Miss Enid Love has been invited by the Ford Foundation to represent Britain in a party of four European School Television experts to visit the United States of America this summer. This is a fact-finding tour relating to an O.E.E.C. conference on "Science Teaching by Television" to be held in Hertfordshire this summer. Miss Love will also address the thirty-second Annual Conference organised by the Institute of Education by Radio and Television at Columbus University, Ohio.

vi Miss Love has also been invited by the Swedish National Broadcasting Service to give a course of lectures to producers who will shortly present school television in Sweden, and to teachers who will use it.

vii One of the Company's Education Officers has spent several months in Western Nigeria, organising the production of school television programmes provided by Western Nigeria Television Corporation in which the Government of Western Nigeria and Overseas Rediffusion Limited are equal partners."[6]

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[6] Op. cit., pp. 9 – 10.

A number of results had accrued from this interaction – principally the generation of a more heightened profile for schools broadcasting and a wider national and international acceptance of it as a resource for learning. But within the output, assiduous liaison with schools had also produced a raising of general programming standards, a closer match to teacher and pupil needs, a raising of general programming standards, improvements in back-up materials and services and more economical use of airtime and production facilities. As a support service it had not only helped to show that educational broadcasts were a good thing in themselves but had established ways of making a good thing better!

Growth and expansion

The 1960s and 1970s were undoubtedly decades of expansion both in education and in educational media. With that expansion, new opportunities for collaboration began to emerge. Powerful endorsements for schools broadcasting had been given in national reports such as the one of Sir John Newsom (1963) which urged the case for "television receivers as necessary equipment for the education of our children"[7] and for media studies as an integral part of secondary curricula. The report advocated, moreover, increasing those areas of programming aimed at non-academic children and those engaged in the transition from school to adult life.

The Plowden Report[8] also praised television as a source of enrichment and singled out these liaison processes by which teachers were encouraged to participate in planning future output. These processes gained further credence by their provision of effective resources at times of rapid and fundamental change in education. In close succession there had ensued the raising of the school-leaving age, the introduction of comprehensive schools, the setting up of the Schools' Council as a central curriculum development agency and extensive involvement of local authorities in closed circuit television.

Glasgow was the first Local Educational Area (LEA) to open an educational television station in 1965 being closely followed by the Inner London Education Authority with a seven land-line system in 1966. Output, audiences and audio-visual developments all grew apace and the first generation of video recorders and colour sets began to appear in schools.

With these changes, there was an even greater realisation that broadcasters and teachers inhabited different worlds and that it was vital to maintain the flow of ideas and reactions between them. In 1967 when only 600 out of 32,000 UK schools were equipped to receive television, Kenneth Fawdry of the BBC spoke of that exchange of ideas as an extra dimension in thinking, enabling the producer "to feel his way into the shoes of the kind of teacher for whom his programme is designed". He referred in particular to " . . . the contribution made by education officers with their rich and varied experience in the field and their highly developed feeling for the climate in which schools programmes are made"[9] and to helpful collaboration between ITV and BBC in furthering this climate of understanding.

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[7] John Newsom: Half Our Future. London: HMSO 1963; pp. 79 and 155

[8] Lord Plowden: Children and their Primary Schools. London: HMSO 1967, Vol. I, p. 262.

Though the view of liaison officers as providing an effective monitoring and curriculum development service had, by now, become almost axiomatic, a further potential role of liaison officers as agents of in-service training now started to be given some prominence.

Those in authority however had different opinions on broadcast liaison officers' responsibility and remit within this area. In their first report on schools broadcasting in 1970, Her Majesty's Inspectors had commented: "At present broadcasting does not figure prominently in local or national courses of in-service training, perhaps because there is an impression that this should be the prime function of the Education Officers of the BBC and their counterparts in the Independent Television Authority and the Independent Television Companies. These Education Officers do what they can to provide information and guidance on the effective use of broadcasting through meetings with teachers, and attendance at conferences and courses. However, they are few in number and their main function is to keep the BBC, the Independent Television Authority and the Independent Television Companies informed about developing trends in the schools and to assess the effectiveness of the programmes in the classroom situation. The in-service training of teachers in the best use of the resources of broadcasting is a task for the LEAs and the training organisations."[10]

However, the brilliant and exhaustive Bullock Report[11] put the ball squarely back in the broadcasters' court. Radio and Television programmes were praised as providing " . . . children and teachers with a common experience that can be adapted to the needs and capacities of individual pupils . . . (and) a valuable stimulus for talking, reading and writing."[12]

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[9] Kenneth Fawdry: Television For Schools. BBC Lunchtime Lectures. Series 5, 13 February 1967; p. 8.

[10] H. M. Inspectors: A Survey of the Use of Broadcasts in School in England and Wales. London: DES 1970; p. 10.

[11] A Language for Life. A report of a Committee of Enquiry into uses of English chaired by Sir Alan Bullock. London: HMSO 1975.

[12] Op. cit., p. 323.

The report also commented approvingly on ITV and BBC's liaison systems: ". . . the educational output of both is influenced by advisory committees on which teachers and other educationalists sit. Their discussion is supplemented by advice and information gained at first hand in the schools by the organisations' own education officers, most of whom are themselves drawn from the teaching profession."[13]

In conclusion, it recommended that television should be put "to more widespread and constructive use in schools" and that " . . . the information services of the BBC and IBA should be exploited more rigourously in teacher training" [14], thus suggesting further precedents for work with teachers.

Unfortunately this suggestion proved to be unrealisable in initial teacher training since teacher training colleges were imminently faced with a period of savage closures, re-organisation and re-absorption into different organisations. In a very short time some 190 institutions were reduced to 51 with new academic courses designed to produce an all-graduate profession. Chief of these was the modular Bachelor of Education Degree (B. Ed.) extending over four years. In many of these B. Ed. schemes only a single thirty hour module of teacher contact time had been allowed for resource training. This, combined with the disappearance of many institutional bases which had employed schools' television innovatively, restricted broadcasters' access, in many instances, to students in training.

Such shortfalls were not totally compensated for by the additional quota for in-service education written into colleges' remit, though an immediate consequence, in the early 1970s, was that the sphere of broadcast liaison operations shifted more towards the context of updating the experienced teacher and away from initial training.

Liaison at IBA headquarters

By 1974, the ITA had taken on board Independent Local Radio and had evolved into the Independent Broadcasting Authority (IBA). Late in that year, it had decided to appoint an Education Officer (Liaison) for full-time publicity and promotion, to make approaches to the independent companies with a view to improving their own liaison arrangements as well as to the various Departments of Education and Local Authorities in order to encourage their support for educational broadcasting development.

The changing preoccupations of educational liaison were reflected in the duties attached to the post. These were:

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[13] Op. cit., p. 322

[14] Op. cit., p. 315.

- Making and maintaining contacts with appropriate educational institutions concerned with pre-service and in-service teacher training and the development of courses and materials to support such activities;
- exploring, advising and generally encouraging the development through LEAs and their associations of effective use of schools broadcasting;
- appraising and encouraging the development and the coordination of educational liaison responsibilities within independent broadcasting companies;
- exploring possibilities of providing experience of broadcasting and liaison through the secondment of teachers by Local Authorities;
- assessing regional educational needs for the Authority's advisory committees.[15]

Inherent in all of this was the two-fold responsibility of keeping colleagues abreast of current educational developments and of improving the quality of liaison between broadcasters and teachers. Both of these operations depended on wide ranging contacts and effective networking and, allowing for the alterations in context, were essentially restatements of persistent and traditionally recognisable aims of schools' liaison.

Set, however, against a situation of educational reform and contraction they represented a considerable challenge. The importance of schools broadcasting needed to be re-emphasised through linkages with new agencies. All this implied new genres of resourcing as well as improved internal and external channels of communication.

Set-backs

Educational change, while benefiting schools, did not always create conditions which favoured more and better school broadcasting. Despite proliferating demands there could be no assurances that budgets and airtime available to schools television would be expanded thus limiting its capacity to respond to increasing pressures.

Already an acute shortage of subject specialist teachers in mathematics, physics, chemistry and modern languages had created a need for more self-instructional courses, for various types of distance learning materials and for exam and syllabus-linked programming. Only some of those demands could be satisfied at any one time.

Neither could broadcasting be a panacea for the ills and shortcomings of the educational system. Inflation, with its consequent erosion of schools' purchasing power, meant limitations not only on broadcasters' capacity to respond to need but, also, on schools' continuing ability to buy existing support materials. What had once been a well-defined and established network of contacts in teacher centres and ETV stations also suffered cut-backs as public spending decreased.

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[15] Cf. IBA Educational Advisory Council, Paper EAC 24; 1976.

So liaison officers had to renew and redeploy their efforts within a much altered system. The continuing resistance of teachers to television in some quarters had also progressively to be overcome. This disillusionment with educational technology had been compounded for some by early failures in programmed learning and teaching machines. A feeling that standards of literacy and expression were falling had also led to greater reliance on print rather than images.

However, whatever the failure of educational technology to provide a breakthrough, there was, undoubtedly, a sense that the curriculum needed to be reformed and that resource-based learning had now assumed greater importance. Whether that could be achieved in terms of national curriculum projects and top-down exemplary materials or by a "grass-roots" introduction of new dimensions into the curriculum, became a matter for impassioned debate.

Certainly, a host of hidden priorities had already started to emerge – family responsibility, personal and social education, health and environmental concerns, enterprise and economic awareness, the transition from learning to earning, equal opportunities, multi-ethnic and anti-racist perspectives, peace education, science in primary schools, craft design and technology – all movements towards an enhanced view of the individual as a doer and maker and as a citizen in society.

The traditional curriculum had become so much encroached on by new social concerns that one informed observer was led to declare "the secret garden has now become a public allotment".[16] Wry comments about "alphabet soup" and the "acronymic curriculum" started to be commonplace.

At such a time of ferment, it became of the first importance to provide detailed and accurate assessments of what was going on. The nature and rate of change were difficult to monitor. Faulty intelligence could mean irrelevance and mismatch and obstacles to the formation of new alliances. Any failure to respond to these new challenges could certainly have reinforced the latently pessimistic view, shared by some, that schools television output was only of marginal value in introducing educational innovation.

Despite increased take-up by teachers and greater enlightenment, broadcasters still had to counter prejudices about saturation, cultural debasement and minimalism while struggling to identify emergent figures, key concepts and possible partnerships in curriculum reform and school focused INSET. It was a circle of uncertainty in which navigational fixes constantly needed to be taken and reference made to the last known position!

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[16] Peter Boulter (then CEO of Cumbria) in a speech to an NAHT Conference 1986.

Towards standardisation of liaison work

At the same time, the IBA realised that the liaison system within companies which had grown up by accretion needed some greater degree of standardisation. In 1976, there were some 24 persons (including IBA staff) who could be called on for liaison purposes. There was little comparability between their remits. Many had hybrid responsibilities in the fields of production or administration which, while enriching the immediacy of liaison work, could curtail the amount of time available for projects of general value for the whole system.

Working within a dispersed federal network of independent companies, education officers' loyalties lay instinctively with their own series and constituencies. Many, in addition, faced problems of having to cover extended or sparsely-inhabited transmission areas or the contrary – densely-populated urban centres where much long-range exploration and missionary work was called for. To be actively and continually engaged in multiple aspects of field liaison while shouldering other responsibilities (say, for programme research or for composing teachers' notes) was a daunting responsibility.

The Authority accordingly felt that serious efforts should be made to achieve a greater degree of unanimity in company liaison, to match staffing to the amount of potential work within a region and to encourage attachments or secondments from teachers.

There was also to be encouragement for further collaboration with the BBC in platform-sharing, previewing, cross-trailing and pooling of information. This, of course, had to be seen against the background of the deliberations of the Annan Committee on Broadcasting which in 1976/77 was reviewing the case for a single National Educational Broadcast Authority whose task it would be to coordinate the production of materials by broadcasters, commercial producers and educational institutions and to commission its own broadcasts. Although the report rejected the proposal (and the proposal for a Regional Educational Broadcasting Authority) it noted that even if broadcasters were not to be coerced into surrendering their long-standing right of producing structured educational programmes, they would still come up against the crucial problem of ensuring correct "arrangements for taking the expert advice and guidance of the education world".[17]

In noting with approval the positive relationship between the separate ITV and BBC field forces and their advisory committees, their efficient maintenance of liaison with schools through visits and advice, and their continual reference to specialist the broadcasting duopoly should continue to "provide adequate liaison between broadcasters themselves and their educational advisory bodies".[18]

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[17] A Report of the Committee on the Future of Broadcasting; Chairman Lord Annan. London: HMSO 1977; p. 312.

More flexible methods for assessing the needs of the educational audience could only be developed by close relationships in which broadcasters continued to "work hand in glove with educationalists and those who use their services".[19]

A paradigm of liaison

In drawing up a paradigm of liaison activities in which ITV company officers were engaged at that time, it is clear that both singly and collectively it constituted a series of working practices which went a long way towards meeting the criteria set down by the Annan Committee. They were listed in an internal IBA paper[20] and included, inter alia:

- Policy meetings with BBC, ETV systems and local authorities to discuss educational priorities and formulate programme proposals;
- briefing advisers and teachers on the range of broadcast resources available to schools in groups or through their professional organisations;
- supporting teacher centre courses with relevant material from ITV output;
- previews of new series allied to experimental distribution systems (such as the Westward TV batchcopying system).
- programme evaluations in schools and colleges;
- specialist presentations at major AVA conferences, Department of Education and Science (DES) short courses, Institute of Education courses and one-day local seminars;
- setting up and servicing major national or regional ITV conferences as a common meeting-ground for teacher and broadcaster;
- joint participation with IBA staff in series of conversations chaired by HMI or other educationalists;
- involvement in local and national induction schemes (such as the Liverpool Pilot scheme).
- college-based in-service work for local serving teachers;
- providing broadcasting components for professional skills courses for initial teacher trainees;
- school-based in-service work with subject specialists;

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[18] Op. cit., pp. 129, 131.

[19] Op. cit. p. 315. 19:42.

[20] IBA Internal Briefing Paper; May 1977.

- representation on and involvement with major national curriculum projects – supplementing and extending their aims through programme series;
- producing well-researched publications for teachers and pupils which could provide a context for programme extension and outreach;
- acting as hosts for attachments or secondments of teachers and students to ITV companies;
- contacting and providing information to schools, parent/teacher associations, interest groups, local bodies and organisations, Directors of Education, HM Inspectorate, and opinion leaders in education and associated fields;
- compiling and processing the information received.

Underlying all this activity there were a number of burning preoccupations – restricted feedback from teachers, the difficulties of opening up dialogue with remote audiences, education officers' continuing search for acceptance as bonafide educationalists, raising audience awareness by previewing and piloting of programmes, training teachers in effective use of broadcasts, encouraging integration with existing curricula and training structures charting new areas for development, prioritising visits and maximising contact with their viewership.

As one officer remarked: "Television liaison, to be at all effective, must be carefully planned and emphasis placed where there will be greatest return. Liaison is a two-way exercise and if it is all coming from one over-worked education officer charging off on hundred mile journeys to visit single schools and receiving little or no return, then the exercise is wasteful and bad for all the relationships concerned."[21]

A need for teacher training

Not all of such seed, fortunately, fell on stony ground but what was still lacking was a national training programme for teachers incorporating the potential of broadcast resources and a clear recognition of what educational liaison officers could offer for example in resource-handling techniques and the exercise of particular teaching skills and methodologies. "Using broadcasts well is no easy task" said the Hayter Report.[22] Many teachers had, as yet, not reached that realisation.

In order to raise the level of teacher skills, there were, in the view of the IBA's staff and Educational Advisory Council, four closely related areas in handling broadcast resources which any training strategy needed to take into account:

- Familiarity with a range of broadcast materials and constant up-dating and renewal;

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[21] Quoted from an IBA Liaison Seminar Paper, 1978.

[22] C. G. Hayter: Using Broadcasts in Schools. London: BBC/IBA 1974, p. 63.

- a discriminating and critical approach to video materials;
- a methodology for integrating relevant broadcast resources into lessons and schemes of work;
- operational and technical competence in the selection presentation, editing, recording, retrieval and collation of broadcast materials.[23]

Not all of these objectives were achievable in the short term since they depended on external factors such as LEA provision, INSET bases, access to the media through cross-referenced information, central recording systems and school video libraries, availability of reliable play-back technology and good servicing of equipment. It was clear that such facilities were rare in many schools or local authorities. Furthermore, advances in video-recording technology, applications of micro-computers and other aspects of the informatics revolution had still to reach the class-room.

Perhaps the memories of those days were the frustrations teachers suffered on account of the unreliability and unavailability of the equipment. There was a constant cry for Rolls-Royce technology at High Street prices. Since schools were still insufficiently organised to make use of the equipment, people and materials that they had, much thought still needed to be given to improving their internal channels of information and building up new infrastructures.

Liaison, therefore, continued to aim at the following broad priorities:

- Raising the level of teacher resource skills (often in collaboration with others);
- making efforts to improve class-room utilisation of broadcast output by exemplary materials;
- encouraging teachers to be aware of the potential of broadcast resources and to feed back information on classroom priorities;
- producing programmes and support materials for schools which continued containing in-service training elements.

This was a time-consuming business which could only be carried out by personal visits and by forging links with opinion-leaders, multipliers and facilitators. Again, it proved to be another voyage into the unknown which created links with training agencies and encouraged further partnerships within the educational world. These included encouragement to LEAs to appoint "teacher-leaders" and media resource officers in schools, the setting up of regional reporting panels, teacher secondments to ITV companies and infiltration of established conference networks at national and local level.

In the early eighties the growth in DES national short course presentations by broadcasters first became apparent. It was further evidence of the contribution that schools television and its liaison services could make to educational innovation and development – notably in areas such as English, Geography, Child Development and Family Responsibility, History, The School and Industrial Society, Religious Education, Health Education, Crafts, Design and Technology (CDT), Language and Reading. Many of these courses became a permanent part of our fixture lists.

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[23] IBA Internal Briefing Paper, 1978 (EAC Paper 18).

Reform of the liaison system

Prior to that, however, the debate about reforming ITV's liaison system had ended and the actual process of reorganisation and expansion was taking place. New franchise holders and new services (such as Channel 4) were introduced, thus producing new opportunities and wider scope for liaison activity. In its desire to improve this area of operations, the IBA had been guided by two desiderata; effective reform and renewal of schools' liaison services within ITV companies and the formation of a parallel force of Community and Continuing Education Officers (CCEOs) which would promote distance learning linked to new strands of "socially purposive broadcasting", which henceforth would form part of the new ITV and C4 output.

In its preliminary discussions about a new schools liaison service a fundamental distinction had to be drawn between "general field liaison" and "series liaison" – the former being seen as cross-phase, cross-curricular activity servicing the whole system. The latter by definition included activities directed primarily at programme research for particular company series and at their promotion.

Naturally, in any extended system which had grown up over a space of time there were bound to be imbalances, anomalies and anachronisms. The IBA, while recognizing that some companies had done excellent work, concluded that the overall picture was "patchy and confused". They noted particular problems related to staffing, company loyalties and the production of joint publicity materials. In certain regions there was understaffing while, in others, companies had focused their attention far too exclusively on their own series. This had led, among other things, to problems in agreeing joint conference and exhibition materials for the whole system.

A series of recommendations was therefore made. The level of staffing was to be only slightly less than that of the BBC field force but greater coordination and conformity was to be called for in job descriptions and field activities. Possibilities of establishing a "base intelligence unit" for providing practical and illuminating information about the effects and uses of schools broadcasting and of appointing a coordinating officer who could convene meetings of company liaison staff were also mooted. As had been previously pointed out, ITV staffing bore little relation to the amount of actual work within a particular region.

In addition, not enough coordinated use was being made of partnerships within and without the network to achieve better contact with the educational audience. Such moves towards encouraging greater cooperation between the separate parts of a dispersed federal system did, however, make allowances for diversity: "Local styles and practice of liaison are highly individualistic and it should not be our intention to impose mechanistic uniformity but rather to synthesize the most effective schemes and methods available".[24]

What was being called for from the companies was greater pooling of ideas and experience, redirection of effort towards combined operations and the introduction of a central "clearing house" for liaison. There were also moves towards reassessing the specific tasks and responsibilities inherent in educational liaison in order to secure some greater measure of comparability between company education officers' functions.

This work of redefining tasks and functions had, undoubtedly, been prompted by the Annan Committee's comments about "broadcasters' sense that they should improve their liaison arrangements with schools"[25] and the oral evidence submitted to them in 1976 that "liaison between broadcasters and users was heterogeneous, it was doubtless inadequate, and there was great uncertainty about the best form of effectiveness".[26] Certain areas of weakness had also been clearly identified, such as fixed roles, lack of mobility, single-mindedness, communication gaps and the lack of an agreed system of reporting-back and information-sharing. The antidote envisaged was that of more systematic and cooperative patterns of working.

At a time of such radical structural change, the IBA was trying to argue the kindred necessity of operational and attitudinal change – a shift away from routine, from "charmed circles", from exclusive preoccupation with one's own output and form lack of inter-company dialogue and record-keeping. There was also a feeling that relating staffing, however notionally, to potential educational demand within a transmission area might be a more effective procedure than the appointment of a single mobile officer to carry out a multiplicity of tasks from a fixed base.

The IBA, in employing various criteria for estimating appropriate levels of provision realised that they could only serve as a rough guide. There were no truly objective means of defining reasonable levels of expectation within such diverse educational constituencies, ... "since liaison is one of those tasks which is expandable or contractable within large limits, depending on opinion about what is or what is not 'essential' and what can or cannot be afforded''.[27]

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[24] EAC paper 1/81.

[25] EAC Paper 11/78.

[26] Reported in EAC Paper 8/76; para. 5.

The bench-mark to be used was the number of Broadcasting Council's officers in the BBC School liaison force, at that time, some nineteen strong. It was felt that this number represented a norm of operational practice with which ITV should be seen to have parity.

The real differences between the respective operations were that ITV officers were expected to be generalists rather than curriculum specialists, that they would be differently distributed because of their company bases and that there would be no ''headquarters staffs'', like those maintained by the BBC in Wales, Scotland and Northern Ireland.

Geography, both physical and national, was also to play a decisive part in determining staffing requirements. Different weightings had to be made for those regions which contained difficult terrain, dispersed populations or particular concentrations of educational institutions.

Liaison as a matter of contractual agreement

Meanwhile, the transmission map had been redrawn by the IBA to provide new franchise areas. The consequent designation of some transmission areas as ''dual regions'' indicated that liaison staff there needed to be doubled. Transmission areas of major producing companies were also required to be strongly staffed and special factors such as indigenous language and culture had also to be taken into account.

Companies not producing schools programmes were for the first time contractually required to have an officer providing an agreed level of ''general field liaison'' whose principal functions were as follows:

- Maintaining a comprehensive network of contacts with schools and related educational organisations in the regions;
- providing information about and ''promoting'' the output;
- contributing to DES, LEA and other appropriate conferences and meetings, and to in-service education in the use of broadcasting, and supplying relevant feed-back from such activities;
- arranging for the circulation of literature related programming;
- observing the use of programmes in schools;
- assisting with enquiries among teachers etc. into the effectiveness of particular programmes, (or pilot runs of programmes) or the assessment of whole areas

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[27] Appendix to EAC Paper 14 (1980).

of provision or of possible needs and 'priorities', and any other such evaluation of the output;
- assisting with any agreed regional 'follow-up' activities, or other regional contributions to a combined effort, in support of some wholly or partially-networked programme.[28]

This statement was important because it was a precursor of the franchise conditions themselves. It tried to analyse the problem and to suggest solutions. It argued, as well, that schools liaison could not be dependent on good will alone. A degree of rigour needed to be brought into the operation. Liaison was to be henceforward a matter of contractual agreement with the new franchise holders which would be the subject of continual discussion, negotiation, updating and review between them and the Authority.

The eventual staffing requirement was that ITV should provide a network of 18.5 full-time equivalents, distributed in a specific way and working to an agreed remit. There was to be a re-definition of the principles and practices of "general field liaison" and a call for greater operational coordination between field officers.

Though acknowledging that it was neither possible nor desirable to make formal distinctions between general field liaison and other types of liaison and that interpretation and practice would differ from region to region, the new requirement was nonetheless a step forward in countering hybridism, and in agreeing collective policies for action. It was not meant to be seen as a move towards greater centralisation but rather towards greater uniformity and rationalisation of effort.

In general, the agreement was honoured by all new franchise holders. They saw the proposals not as empire-building but rather as the creation of a more effective field force on the basis of what had succeeded individually and locally. It also willed the means to carry out that task.

At the same time, the new and powerful force of Independent Local Radio was also exploring the educational potential of its output – more in relation to communities as a whole than exclusively with schools. Although some notable experiments for the schools' audience took place, in areas such as revision of English set texts for the General Certificate of Secondary Education, foreign language teaching, and local history and environmental education, ILR appointed no formal network of education liaison officers.

Where a local station offered programming for schools it was usually as a result of attachments and secondments from outside agencies such as colleges of education or local education authorities to provide a dimension of expert advice. Such initiatives were also parallelled in ITV companies' own short term arrangements for strengthening liaison with schools.

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[28] Appendix to EAC paper 14 (1980).

Towards a national curriculum

While characterising the seventies as a period of innovation and expansion in technology, curriculum development projects and television for schools, I would argue that the eighties were more a decade of governmental appraisal, review and imposed institutional and curriculum change. These movements culminated in the introduction of the Education Reform Act (1988) and the phasing in of a national curriculum. In retrospect, it was a decade of policy-making based on an interminable succession of reports, consultations, national curriculum documents, evidence and counter-evidence, orders and guidance.

Similarly, the established structures and practices of schools broadcasting had also come under review. After prolonged periods of uncertainty and anxiety, its role and future became reaffirmed in the "Broadcasting Bill" (1990) though the contexts in which it would operate in the future were to be much altered. What contribution could the ITV liaison service continue to play in these changing circumstances? One's proximity to the event makes objective or comprehensive assessment difficult.

It is, however, possible to say that ITV for Schools ensured its own survival by producing relevant and marketable programming, by sensitizing educational and political opinion to the value of schools broadcasting as a national resource and by assiduously lobbying for all it held dear. It gave its programmes a prominence and a salience in classrooms and courses and initiated professional debate of a high order.

It celebrated its thirtieth anniversary of service to schools in grand style and in distinguished company and demonstrated a continuing validity and efficacy in disseminating new approaches to core and foundation subjects and cross-curricular themes of National and Regional curricula. Out of these crowded and harassed years it is only possible to pull a few snapshots of experience and achievement but these may be of relevance in sign-posting the route travelled and the way ahead.

The major tasks outlined by the Bullock Report (1974) of promoting teacher conversancy with broadcasts and of breaking the habit of passive viewing have remained crucially important to this day. It was a theme which had been returned to subsequently by the Annan Committee. "If all this material is to be used all effectively, teachers need to be trained in the use and be given time properly to prepare this kind of teaching. Properly used, educational broadcasts involve the teacher in hard work; misused they are a way of filling in classroom time without the need for much thought or preparation''.[29]

However, in the aftermath of its report, there had been, seemingly, no dramatic change in classroom practice. Schools broadcasts were still widely used, and the filtering back of accurate first-hand information had ensured that the product was well-prepared and backed up with an increasing number of multi-media resources. On the other hand, official reports pointed time and again to the poor average quality of exploitation by teachers, the need for greater involvement of broadcast resources in INSET sessions and the improvements necessary at whole school and departmental level if such material was to be properly exploited.

Associated with such pressures for clearer resource policies and practices in schools, there was also a persistent call for ''training the trainers''. The possibilities of setting up various school-based programmes for these purposes were much enhanced by the advent of computerised support materials and educational data-bases, as well as by formation of media literacy projects and networks and introduction of new or improved technologies of reception, recording and play-back. Designated in-service days for all teaching staffs and easier access to self-paced learning enabled far greater emphasis to be placed on the individual teacher's role as resource handler and manager.

A further incentive was provided by such reports as the Department of Education and Science Survey of First Schools which deplored the use of schools television as a placebo. ''In some schools radio and television was used so much that children's complementary direct experiences were curtailed. When this was accompanied by under preparation, the children were gaining little for the time spent''.[30]

While resisting any suggestion that schools television was inadequate in itself because it was being badly used, broadcasting liaison officers realised that they could not, on their own, compensate for short-falls in teacher training. The limits imposed on them by small numbers, difficulties of access to teachers and lack of any official and formal role in in-service training meant that they had relatively little direct influence on teacher exploitation of their materials.

Their only recourse was to adopt indirect approaches as, for example, in the incorporation of straightforward INSET messages into programmes designed for pupils. This was the well-argued and long-standing view of one colleague who had pioneered such dual-purpose resources: ''At present, school broadcasting is something of a gift horse. As well as looking at its teeth, should we not all spend more time telling people what it can do – and may be offering a few riding lessons''.[31]

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[29] A Report of the Committee on the Future of Broadcasting, Chairman Lord Annan. London: HMSO 1977, p. 312 .19:13

[30] Education 5 – 9. An illustrative survey of 80 first schools in England. London: HMSO 1982; p.132:31.

INSET and the improvement of teachers' skills

Such considerations, in turn, led to a variety of strategies aimed at increasing the media skills of teachers and their trainers. On the level of personal contact, invitations were made to large groups of people – such as HMI, advisers or subject specialists who were responsible for major areas of INSET – to attend one-day seminars or evening previews during which examples of translating programmes into practical activity could be given by a range of experts. Familiarisation with the output was the first stage but the key to the problem of better utilisation lay in identifying instances of good practice and using them as exemplary materials for the widest audience.

More systematic and schematised follow-up to programmes started to appear in teachers' notes, and free magazines and books such as ''ITV for Schools'' and ''The Use of Video-Recording in Schools'' (1982) were distributed to schools and colleges and at conferences and courses. In order to update this whole area, ITV Company liaison officers later produced an introductory handbook on INSET (1988) containing a number of briefs besides suggesting workshop activities for INSET leaders and publicising their own services.[32]

A travelling display, first commissioned by the IBA for ITV School Television's 30th Anniversary conference also incorporated a number of starting points for better exploitation and provided a useful visual aid for training sessions.

Furthermore, the strand of programming concerned solely with INSET matters and curriculum development in schools grew from five programmes in 1988 to well over 40 in 1990/91 which included core areas such as ''Science Teaching through Television''. INSET ''triggers'' were included in schools programmes, both through direct observation of projects and through close-ups of child-centred activity.

Sometimes a single programme in a series would be set aside for a discussion on teaching methods or on approaches to topic work. One company even produced a single free video illustrated by programme excerpts in which the producer discussed his series philosophy and some of the ways in which he thought programmes could be adapted for in-service use.

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[31] P. Grosset: Letter in ''Trends in Education'; London: HMSO Autumn 1977; p. 45.
[32] INSET. Using Television in INSET Work. London: ITV Publications (no date).

Yet other companies produced video-packages in association with consortia of local education authorities or areas of growing concern such as the carrying out of moderation and assessment in the primary school. Others received commissions from the National Curriculum Council for video materials in English for Key Stages One, Two, Three and Four or for interactive video-discs in Mathematics in which good practice and sound methodology were able to be shared with wider INSET audiences.

All this, combined with de-restrictions of copyright, the growth of video-libraries in schools, and provision of linked interactive materials on computer and videodisc have helped to create much greater understanding of the potential of ITV for Schools and more considered and discriminating use by teachers.

In information retrieval alone, increased access to micro-electronic technology by pupils and teachers has helped enormously. The Kingman Report aptly reminds us how its multiplying modes of communication have enhanced all levels of educational dialogue: ". . . round the city of Caxton, the electronic suburbs are rising. To the language of books is added the language of television and radio, the elliptical demotic of the telephone, the processed codes of the computer".[33]

The Scottish experience

However, if one were to point to what has been the most important response to improving classroom utilisation during the last decade one would have to mention the efforts of the Scottish Education Department (SED). Inspired by the Intercollegiate Research Project into Broadcasting in Scotland[34] and by a subsequent report of Her Majesty's Inspectors of Schools[35], the Scottish Education Department in 1984 suggested a number of ways in which liaison between broadcasters and educationist might be better targeted.

They did this by publishing collection of occasional papers surveying broadcasters' and teachers' joint efforts at creating better media resources and more effective classroom use. In the foreword to this, the persistent dichotomy between profession and performance is well highlighted: "Schools broadcasts constitute the most commonly used resource available to teachers. During any week audiences equivalent to more than half of the school population of Scotland . . . watch the schools output of the BBC and the ITV companies''.[36]

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[33] Report of the Committee of Inquiry into the Teaching of English Language. London: HMSO, March 1988; p. 8, para 7.

[34] A. Macintyre et al.: School Broadcasting in Scottish Schools. Inter College Research. Glasgow: Jordanhill College 1981.

[35] Learning and Teaching in Scottish Secondary Schools. The Contribution of Educational Technology. A Report by HM Inspectors of Schools. SED HMSO 1982.

Yet most parties agreed that the downside of such widespread use was poor utilisation in relation to pupil needs and the curriculum. This could only be countered, by greater emphasis on teacher education, identification of better strategies of utilisation at whole school and departmental levels, linking radio and television production to national and local curriculum developments and by concerted efforts at making teachers, lecturers, resource librarians and advisers more aware of these links.[37]

Though much of this restated the obvious, the series of papers that followed tried to define and extend some of these contexts and to give concrete examples of productive use. By and large, though, the view of liaison officers which emerged was the unchanging one of producers' servants – agents through whom classroom use is recorded, teachers' views relayed and success or failure evaluated: ''Liaison is an important part of a TV education department's role and finding out teacher reaction to series as an important part of liaison''.[38]

The tasks of liaison similarly are described as identifying good practice, obtaining information and furnishing advice which will shape the future product. To make the process more effective, two particular stages were emphasised:

- adequate consultation in the early steps of any project;
- the creation of more explicit links between curriculum developers and broadcasters.

This situation was made possible by the centralisation and standardisation of the Scottish curriculum and by good educational and resource networking.

There was also a strong recognition that educational broadcasts were not to be seen as an end in themselves but as a means to an end. The more that they could be demonstrated to be relevant to pupil needs and the better they were used by teachers, the more central they would become to the learning process. By identifying trends and patterns and converting them into significant facts, the broadcasting liaison officer thus became seen as the catalyst whereby value and coherence were added to random advice and accurate bases for production were established.

Overshadowing this positive realisation was the apprehension that pressures on air-time and budgets for schools programmes were increasing together with competition from other technologies. If the nature and form of schools broadcasting were to be compelled to change, to what extent would liaison services survive? Were there other means of achieving the same results? To what extent were computers replacing labour-intensive, face-to-face activities of this nature? Was promotion of series still as important as involvement in INSET? Had distance learning now come to predominate over direct contact? All these questions and others posed questions for survival or re-adaptation to which answers have yet to be found.

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[36] J. Duncan (Ed.): Broadcasting and School Education in Scotland. Edinburgh: HMSO 1984, p. 7.
[37] Cf. op. cit., p. 8.
[38] Op. cit., p. 27.

There are obviously strong parallels between the Scottish and English experiences of schools broadcasting but the significant difference between them is that those who had responsibility for the oversight and implementation of the Scottish Curriculum were prepared to take measures to enhance teacher skills and utilisation. Those took various forms such as the publication of an index of broadcast resources (later a data-base) of advice and guidance to teachers and incorporation of broadcasts into in-service training programmes. Throughout the 1980s there was also a sustained attempt to examine educational broadcast use in Scotland through inspections, visits and returns from schools. As for the rest of the UK, there were few attempts to emulate these practices on a large scale.

New challenges: partnerships in resourcing the new curricula

After all these campaigns, re-assessments and re-orientations, liaison by broadcasters with schools was still being viewed as an interface activity which could, at one level, absorb theoretical change, and at the other, relate to classroom practice. As new curricula started to emerge there was greater emphasis on the need to develop overviews and to extrapolate trends. Ways of mapping new territory have needed to be devised and systems of consultation and partnership for coping with rapid change have had to be quickly improvised.

The process has become no longer just a matter of finding out what teachers want but of learning what was expected of them by National Curriculum and interpreting and collating those findings with other programme research. Much more contextualisation has had to take place and more attention has had to be devoted to product appraisal and to monitoring.

At the same time as a marked increase in formal contact with statutory curriculum agencies has been demanded, dialogue with teachers and pupils cannot be dispensed with. There has been much work to be done in closing information gaps, in relaying the wishes of consumer to producer, in ascertaining local variations and in consulting audiences over the modification and re-working of existing series.

With each successive generation of teachers, there have still been ways in which the ITV image has had to be promoted and by which a voice could be gained in educational debate. Work with disseminators and multipliers and new centres of influence and expertise has also grown apace.

Formally and publicly, much evidence about the validity and continuing usefulness of school broadcasting has had to be given to committees and working groups to ensure that it would be preserved and strengthened to meet future challenges. But to what extent could views and opinions which related to the Scottish educational system itself be realisable within the English situation? Were such conclusions either transferable or generalisable? Were they merely counsels of perfection?

Certainly when ITV liaison officers shared their experiences at their own Net-Work Sub-Committee or the IBA's Education Advisory Council in London they were well aware of disparities of practice from region to region and the impossibility of implementing a common standard nation-wide.

As far back as 1979, Michael Williams had pointed this out in his study on "Curriculum Decision Making and Educational Television"[39], describing in some detail the feeling among some English teachers that schools broadcasts were useful but not essential and the immease variations in teacher attitude towards broadcasts and the priority accorded to them in planning the school curriculum.

There was no uniform policy. Senior management groups varied in their perceptions of broadcasting, resource handlers varied in status; responsibility and technical and financial support. Teachers were often critical, differing over the place of broadcasts in resourcing the curriculum and the amount of preparation and follow-up which it was necessary to employ. Joan Dean, a Senior LEA adviser, also pointed out that in England, where schools television had not been as closely monitored as it had been in Scotland, matters could still go by default:

> "It is all too easy for advisers and others visiting a school to select classrooms to visit where there is activity and to pass by those in which broadcasting is in use. This is open to a variety of interpretation. It is also salutary to consider how infrequently one recommends the use of broadcasting for a particular purpose, or how rarely it appears as part of an in-service programme. Are we perhaps putting over to teachers a message which we would hesitate to voice explicitly? Does this message reflect what we believe or is it an unfortunate misinterpretation?"[40]

A great deal of work still needed to go into bridging that gap. Nowhere were the contrasts between the potential of schools programmes and their actual use better found than in two reports by Her Majesty's Inspectors, one on "Primary Education in England"[41], the other on "Aspects of Secondary Education".[42]

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[39] Michael T. Williams: Curriculum Decision Making and Educational Television. London: IBA 1979 (IBA Fellowship Report).

[40] Unpublished paper to an induction conference, 1982.

In both reports schools television is acknowledged as a popular medium in schools:

> "Television programmes were introduced in more than four-fifths of classes and radio in about three-fifths of classes. Tape recordings were made by children in about a fifth of all the classes. Pre-recorded material was used in half of the classes."[43]

However, disquiet was expressed concerning teachers' over-reliance on and indiscriminate use of broadcasts in some curricular areas, while in others, where the general level of professional knowledge was low, there was an apparent reluctance to capitalise on what they could offer. In Science, for example, some two-fifths of classes used television programmes but only a tenth used radio:

> "In some classes a particular television or radio broadcast was selected to fit in with a topic the class was studying, and in other part of a term's work was planned around a series of programmes. Used in these ways, television and radio broadcasting made a valuable contribution to the work and it is surprising that, in a subject where many teachers lacked confidence in their own abilities, more use was not made of this resource to support the work in science".[44]

The near future

To bring this about requires attitudinal change – the slowest of all processes which can only be brought about in favourable circumstances. To what extent will these be present in the future? Certainly, we know that with the transition from present in-house production to the introduction of a large quota of new programming from independent producers and from another sources, schools liaison will continue but in an altered mode. Officers will be attached to a "devolved body" – now in the process of formation called "the Educational Television Company" whose shareholders are to be drawn from some of the existing ITV (later Channel 3) Companies Thames, Granada, Central, Yorkshire, Grampian, Scottish and Ulster. It is realized by Channel 4 that to achieve a successful transition to this new structure it will be necessary to arrange suitable machinery for it to take place.

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[41] Primary Education in England. A Survey by HM Inspectors of Schools. London: HMSO 1978.

[42] Aspects of Secondary Education in England. A Survey by HM Inspectors of Schools. London: HMSO 1979.

[43] Primary Education in England. A Survey by HM Inspectors of Schools, p. 50, 5:43.

[44] Ibid. p. 59, 5.73; see also Aspects of Secondary Education in England. A Survey by HM Inspectors of Schools; op. cit., p. 193.

Renewed effort needs to be put into developing, promoting and marketing series and their multi-media back-up materials. In order to ensure this, there will therefore need to be, within the devolved body, a print and software service together with a network of school liaison officers located throughout the UK. Their prime duty will be to advise programme producers, to develop and prepare support materials and to see to the overall coordination of the educational package – so the traditional work of information gathering and briefing has been given a renewed lease of life.

In the national regions, schools liaison officers will continue to play an important role with relevant educational agencies and overall in promoting series with educationalists and in schools. They will, however, be engaged in fewer school visits and place greater reliance on specially convened teacher conferences. Altogether there will be nine posts, located in Scotland, Northern Ireland and Wales and in two English offices – one in London and one in the North. These will be recruited on the basis of subject specialism. All this constitutes a major reorganisation of structures, channels of communication and relationships between the Independent Television Commission, its Education Advisory Council and the new field force.

A research monograph has recently pointed out that just under half of the teachers it surveyed had heard of ITV and BBC education officers but a much smaller number had had actual contact with them.[45] With 32,000 schools in the UK that is, perhaps, only to be expected. What is important, however, is that out of that limited range of contacts liaison officers have helped to forge a resource for all pupils and teachers.

For the future they will be helped in this task by the growth of electronic liaison through fax and E-Mail and by increased possibilities of data storage. The automated office has brought us further along the road from paper-chase to database. In the mid-eighties when the pruning back of committee structures at the IBA and the movement away from 'satellite' committees and panels concerned with separate phases of schooling occurred, a greater onus was placed on education officers to provide more investigative reports across a wider spectrum of enquiry. Much valuable research was done at that period into large topics as Primary Science, Infant/Junior Miscellany series and Teacher INSET in broadcasts. These whole-system projects not only evaluated existing series and materials but advised on new content or changes in approach needed within them.

While systematic visits to schools and observation of teacher use and follow-up which these entailed are still to continue, it seems as if there are contrary pressures for officers to demonstrate the management and development of television resources in the new school-based training sessions for all teachers, together with other staff development courses.

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[45] Moss, R.; Ch. Jones and B. Gunter: Television in Schools. London: Libbey 1991; pp. 40 – 41.

They are also being called on to produce many more training materials either through internal advisers or in negotiation with external agencies. This has become most apparent in the field of computer software and has led not only to publication and distribution of such materials but to a printed catalogue and a data-base (Key/Key Plus) giving the whole range of ITV Schools broadcasts and supporting materials. It could, in time, become a major focus of effort.

And what of the dark and flickering screen of the future? Since September 1987, ITV, though transmitting its schools output on Channel 4, has retained full control of the funding and production of such programmes together with all support services and materials. Under the terms of the 1990 Broadcasting Act all such responsibilities will pass to Channel 4, whose Commissioning Editor will ensure continuity of advice within this centralised resource which can be adapted to the needs and capacities of so many individual pupils.

Good and effective liaison will need to continue at every level to maintain the knowledge and insights that have contributed to the excellence and relevance of the product. The work of liaison is essential to quality and to progress, its assessments and its contact networks varying from phase to phase, subject to subject and region to region provide a vital flow of information.

Increasingly it will need to develop more effective communication and accurate reporting through intermeshing forms of information technology. Though its worth is manifested both in practical activities and in its end product, it is by its very nature always in a state of ferment and self-renewal fed by the twin desires of finding out more and becoming better known constantly engaged in searching, discovering, refining and applying what has been learnt.

As an activity it has always been an integral part of programme planning and has provided a service whose reputation has often outstripped its presence. As Iris Murdoch has written: "Men truly manifest themselves in the long pattern of their acts and not in any nutshell of self-theory".[46] There is now a new era in schools broadcasting in which that assertion needs to be proved all over again.

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[46] Iris Murdoch: The Black Prince. London 1974; p. xi.

Sandra Arnold

Education Liaison for Independent Television in the North of Scotland

In the United Kingdom, liaison between the programme makers and the users, especially teachers, has always been encouraged as part of public service broadcasting. For more than two decades Independent Television (ITV) companies making school series and even some of the non-producing companies have employed Education Officers to liaise with schools and other educational establishments.

Post 1993 when Channel 4 takes over the responsibility for the schools' service, the Independent Television Commission (ITC) has insisted on the continued maintenance of a liaison force underlining its significance. The importance of this direct link between producer and consumer is, therefore, without doubt.

As in other areas of the broadcasting industry, market forces prevail: the needs of the consumer must be met. In England and with variations in Wales and Northern Ireland, the consumer – the teaching profession – is having to cope with implementing the National Curriculum and, in Scotland, the 5 – 14 Initiatives.

Not only has curriculum content been specified in detail but teaching and learning strategies have moved from teacher to pupil-centred approaches in which resource-based learning has become increasingly important. It is essential therefore for the programme makers to know exactly what is intended by the educational policy makers in order to provide a flexible resource which can be integrated into the curriculum and possibly alleviate some of the pressures faced by classroom teachers.

To this end, liaison in the ITV system exists at various levels: the ITC itself has a School Advisory Council and is so alerted to the areas of need; each producing company has an Education Advisory Committee and at least one Education Officer who is responsible for national and local liaison.

Effective liaison for a small regional company is time-consuming and costly but, providing the number of people involved in the liaison activities is adequate, contact at grassroots level is relatively easy as teachers appear to welcome the support.

Broadcasters in Scotland have developed a network of well-established links with top educational policy-making groups which is quite unique and possibly the envy of other areas in the United Kingdom: the Scottish Office Education Department

(SOED), the Scottish Consultative Council on the Curriculum (SCCC), the Convention of Scottish Local Authorities (COSLA), and the General Teaching Council (GTC)).

More difficult is the liaison that is necessary if we are making a series for UK rather than for transmission in Scotland only, as this must not only fit into the Scottish curriculum but also that of England and Wales. Identifying needs through contact with practising teachers becomes impossible in these cases and so reliance is on information from educational publications and policy makers.

However, it should be emphasised that liaison is not merely an information gathering exercise: teachers must be helped to make television a central resource which is appreciated for its richness as a persuasive and pervasive source of attitudes and values.

The existence and relevance of these resources must be also publicised. Consequently, liaison activities in the North of Scotland, as elsewhere in the United Kingdom, have grown from being an information gathering and distributing exercise to one where the effective integration of broadcasts into the curriculum is actively promoted.

Grampian Television (GTV), the third smallest of the existing ITV companies in terms of population served, transmits to the largest of the ITV areas. It is an area larger than Switzerland with almost a thousand schools many of which are rural, one-or-two-teacher establishments.

To serve this vast and diverse territory, the company employs one full-time Education Officer based at the studios in Aberdeen and three part-time School Liaison Officers, home based in different parts of the transmission area. All are aware of the specific needs of their own region, liaising with local Education Authorities as well as individual schools.

Working with the Local Authorities in providing input into their in-service training days, when schools are closed and groups of teachers are brought together, has been particularly beneficial. It reduces time wasting and expensive travel for the Officers and provides the Local Authority with a free in-service session.

GTV's liaison activities are decided at company in-service days when the Liaison Officers travel to and stay in Aberdeen to work at the studios with the Education Officer. Broad policy decisions are made for the forthcoming year or term and each Officer implements these as best suits the needs of her region.

In Scotland we are in an enviable position in that the three current ITV companies (Grampian, Scottish and Borders) work very closely with the BBC, the SOED, the

GTC and colleges of education in promoting the effective use of school broadcasts both on television and radio.

In the early eighties the Broadcasting and Curriculum Liaison Group was set up drawing membership from these organisations to look at the needs of the education sector. In its initial stages, conferences were held so that the views of classroom teachers and education policy makers were canvassed.

At this time, the major educational change in Scotland was from the Ordinary Grade Certificate, awarded after examination to pupils at the age of approximately 16 years, to the new Standard Grade Certificate.

Since this change was designed to meet the needs of all pupils it has been accompanied by an explosive growth in resource-based learning, and not surprisingly the teaching profession sought assistance in identifying suitable resources. To this end the SOED seconded teachers and lecturers from Colleges of Education to complete the task.

The Broadcasting and Curriculum Liaison Group worked closely with these secondees to produce the "Broadcasting and Curriculum File". This document identifies television and radio series, programmes or parts of programmes that are suitable for use with specific areas of most subjects of the new Standard Grade courses.

Costs for printing, publishing and distribution were borne jointly by the companies and the SOED. Two copies of the file were distributed to each secondary school in Scotland with the intention of one copy remaining centrally in a library or resource centre, the other to be divided amongst the various subject areas.

Updating this File, which has now been transferred to computer disc, continues as part of the liaison activities of the producing companies in conjunction with the SOED and Local Education Authorities (LEA).

The most recent activity of this group, working with teachers, is the production of a new "5 – 14 File" identifying the ITV and BBC output over the last two years which matches specific areas of the primary Mathematics and English language developments. This is to be distributed in Autumn 1991 and, funds being available, will be an on-going project as other subject areas are supported.

In addition the Group has undertaken the production of a user-friendly publication for primary schools on the effective use of television and radio. This will be sent to all teacher resource centres in Scotland, together with a video compiling clips of programmes which should help exemplify points made in the print. This will enable schools to run their own in-service training. Pilot work for the format of this publication was carried out by the School Liaison Officers in Scotland.

Within the context of Grampian Television's transmission area as opposed to the National Region, Scotland, liaison with schools includes the promotion of the material produced by the Broadcasting and Curriculum Liaison Group.

Through its liaison force, the company encourages displays to be taken to national and local educational conferences, not only raising the profile of the company by presenting and advertising their programmes but providing a service for the teachers by also giving information of series from other ITV companies who have produced material suitable to the theme of the conference.

Liaison activities through Local Authorities or directly with individual primary schools or departments in the secondary sector vary greatly. They range from identifying and showing clips of ITV programmes specifically suited to the topic or subject area under development in a school, to running half day or whole day workshops on the effective use of television as an integrated resource in lesson planning. With the increase in numbers and usage of video recorders in schools it is now easier for staff to pre-record and hence pre-view and pre-select individual programmes from a series or, indeed, parts of programmes. Although good practice is patchy, it is improving.

During these contacts with schools it is becoming more obvious that what many schools lack is a policy on the effective use of resources, including television and radio. This, of course, has management implications and so it was decided to seek direct help from the Local Education Authorities.

In GTV's transmission area one Authority, Tayside, has already got this underway, having set up small committees to work with the broadcasters to develop an Authority policy. It may not be unique in Scotland but this is the first Authority action resulting from discussions between GTV's Education Officer and a Local Authority Directorate.

Within the North of Scotland, the local College of Education is also targeted for liaison activities and information about broadcasting and its integration into teaching strategies at the planning stage are now included in all pre-service courses. Indeed, GTV's Liaison Officers often have a direct input into these courses or have been instrumental in related development work.

Like any good product, sales (or usage, in the case of television programmes) reflect the amount and kind of exposure and advertising it gets and clearly it is part of the responsibility of a company's liaison force to "sell" their own products.

This is partly achieved by printing and distributing staffroom posters reminding teachers of the series, transmission times and the support material. Usually, though not always, teachers tend to use those television programmes for which they have purchased support material and therefore sales give a good indication of take up of a series.

To complete this "advertising" prior to transmission, if possible, Liaison Officers hold previews for teachers in their area and continue to do so throughout the first year of transmission obtaining feedback of initial teacher response. This is then forwarded as a written report to the producer together with an evaluation report constructed from teachers' replies to short questionnaires. Feedback about use of and response to our own programmes continues throughout the transmission period and informs the development of future series.

In short, the job of liaison in the North of Scotland, which is financed by Grampian Television, falls into four categories:

- the identification of teacher needs in relation to new educational policies/ developments;
- the dissemination of good practice through pre-service and in-service work;
- the promotion of the company and its products, and those of other ITV companies;
- summative evaluation of series with a view to informing future productions.

It is hoped that post-1993, when the responsibility for employing, organising and funding a liaison force lies with Channel 4 rather than the new Independent Television franchise holders, that the level and breadth of liaison developed in the North of Scotland by Grampian Television will be maintained.

Julie Cogill

The Role of BBC Education Officers

As Kees Schippers points out elsewhere in this volume, there are various possible models for the organisation of school television in Europe:

1. School television in the hands of education. In this case it is a ministry or department of education which determines the nature of educational series.
2. School television is a department of general broadcasting but with structural links to education.
3. School television is a department of general broadcasts with no structural links to education.

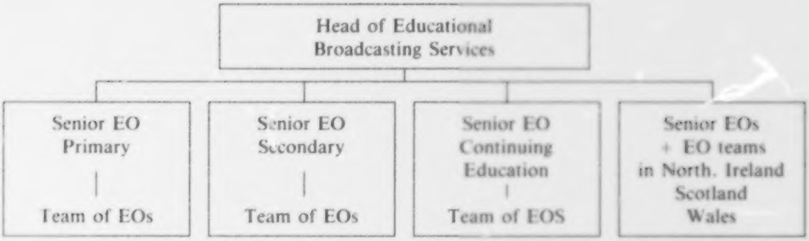
Not surprisingly there is substantial advantage according to Kees Schippers in the first and second models which have structural educational links:

- they guarantee greater effect because they are close to the heart of education;
- effectiveness implies increased participation and appreciation;
- they put TV production on a sound educational basis acknowledged by those in education;
- in times of crisis, organisations can depend upon support from both broadcast and education authorities.

Education Officers (EOs) provide the structural liaison between education and the production departments of School Television and Radio and Continuing Education Television and Radio. The majority are based in London close to the production departments but in order to gain a global perspective there are also Education Officer bases in the North of England, Northern Ireland, Scotland, and Wales. They form part of the BBC Educational Broadcasting Services (EBS).

Education Officers have recently been restructured into primary, secondary and continuing education teams. This does not imply strict adherence to one team, though most Education Officers have a specialism which lends itself to working chiefly in one particular area. For example, in the primary area there is an Education Officer with pre-school experience; in the secondary section Education Officers have a subject specialism and in continuing education there are experts in multiculturalism and adult literacy.

Departmental structure


Head of Educational Broadcasting Services
Senior EO Primary
Team of EOs
Senior EO Secondary
Team of EOs
Senior EO Continuing Education
Team of EOS
Senior EOs + EO teams in North. Ireland Scotland Wales

(EO = Education Officer)

All members of the group in the primary and secondary teams are ex-teachers and many have previously held senior positions in schools such as headteacher, head of department, or provided in-service education for teachers at local authority level or lectured in teacher training colleges.

Though it might be said that there are many people within education who have similar experience and expertise, the advantage of an Education Officer force lies in their knowledge of and ability to work in both broadcasting and education. This enables a unique input to the process of educational broadcasting. What production departments often require are not only the educational needs but those vital links which transform priorities in education into programme ideas.

In consultation with production departments the Head of EBS and Senior Education Officers organise the research work load for Education Officer fieldwork teams. They also have a wide knowledge of the field and prepare discussion papers on educational broadcasting for the committees of the Education Broadcasting Councils.

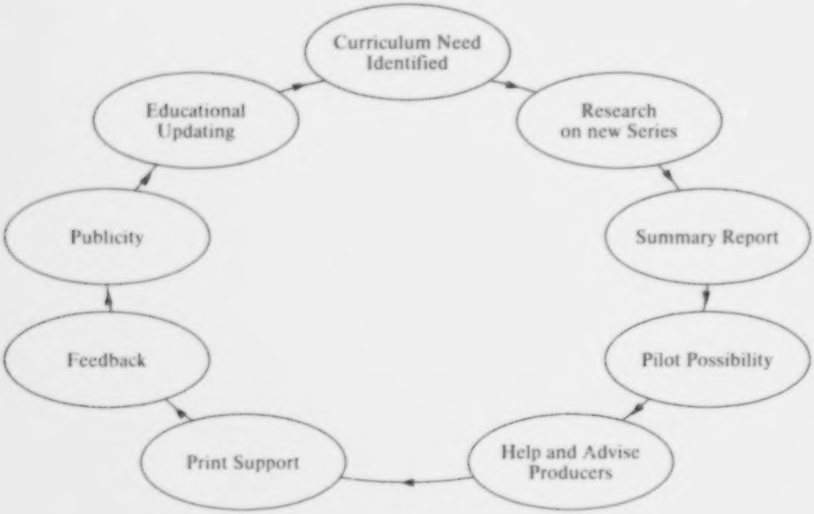
The input of Education Officers to the BBC School Television Department

The major tasks of an Education Officer are to:

- identify curriculum needs;
- research the needs of particular series;
- pilot programmes;
- help and advise producers;
- monitor print support;

- provide feedback on use of series in schools;
- publicise information to teachers in school;
- provide an update on educational views.

As curriculum needs may be identified at any stage in which Education Officers have contact with the educational world the process of the task is largely cyclical as outlined in the diagram below.


Curriculum Need Identified
Research on new Series
Summary Report
Pilot Possibility
Help and Advise Producers
Print Support
Feedback
Publicity
Educational Updating

Forward editorial planning

Senior Education Officers work with the Head of School Television and executive producers to evolve department policy, identify curriculum needs and prepare for forward planning of new series.

This information is obtained in conjunction with Education Officers working in the field by:

- co-ordinating with the education world through consulting teachers, advisory teachers, or government advisers or inspectors who may perceive a gap in the television provision;

- analysing trends and developments in educational areas;
- identifying where educational broadcasting would be most effective, significant and beneficial, thus establishing priorities.

Research

Once it has been established that there is the need for a particular series, a team of 3 or 4 Education Officers from various parts of the country is established to research the particular requirements for the programmes concerned. The team leader for each project then draws up a fieldwork brief describing the research required. The work of the fieldwork team generally consists of:

- visiting existing user groups of other similar series to ascertain the likes and dislikes, needs and wants of teachers and children in the classroom;
- organising consultative groups of teachers and advisers to gain advice on programme ideas and educational needs; providing reports to the production departments on each individual school visit or meeting;
- providing a summary report produced by the team leader drawing out the major educational requirements and programme ideas.

Piloting programmes

Since it is expensive to pilot programmes, it is of major importance that the pilot is tested sufficiently far ahead to influence decisions on the series. It is equally vital that the pilot is tested across a range of establishments from a large inner-city school in London to a small two-teacher country school in the North of Scotland. The Education Officer force also use the piloting opportunity to introduce non-user schools to a particular aspect of broadcasting as well as testing reactions from old fans. Research is then undertaken as in the previous section and results fed back to production departments.

When piloting, information is gathered on:

- the educational value of the resource
  (Did it hold the pupils attention? Did the teacher feel it was worthwhile? Did the programme motivate pupils to undertake the follow-up work suggested?);
- the suitability of the educational resource for the age of the pupils;
- the suitability of the presenter and programme style;
- the teaching quality of the programme
  (Was the pacing of the programme right and were there too many or too few concepts included?);
- the suitability of the follow up work suggested.

Helping and advising producers

On particular series within their specialist fields Education Officers may work on a day-to-day basis with a producer giving advice on programme content and style. This does not imply that Education Officers become a second producer, as their input is usually sought on an intermittent basis in particular ways through:

- an early input of ideas from fieldwork research and brain storming sessions with the production team;
- checking scripts for accuracy in subject detail, language levels and equal opportunity factors;
- suggesting teachers or schools for filming particularly if children are to be involved;
- occasionally viewing rushes with the producer to get the best educational impact from the material.

Feedback

Both quantitative and qualitative feedback is obtained on school television series. Feedback on the percentage of schools using particular series is obtained each term from the Broadcast Research Department which is not exclusively for the use of education. Data is collected via a questionnaire using a sample of schools and through this the rise and fall in users is detected.

In an ideal world, objective qualitative feedback should also be sought on all school television programmes but in reality there are not enough people available to do this and it is therefore necessary to prioritise needs. These fall roughly into the following categories:

1. New series for which feedback can be obtained in sufficient time to influence later programmes in the same series.
2. Long-running series which may show a drop in audiences from information supplied by the Broadcast Research Department.
   (There is always an input of new programmes to this type of series on an annual basis. In this case it is useful to question teachers who have recently stopped using the series, though current users also frequently suggest possible reasons for a drop in popularity.)
3. Long-running series which may be affected by curriculum change.
   (This is a particular concern in the current UK climate where the introduction of a National Curriculum is affecting the teaching and learning needs of the country.)

Some BBC School Television series are used by 70% of schools, others perhaps by only 20%. To telephone schools on a random basis might in some cases be like looking for a needle in a haystack. In order to assist in the process of finding user schools, Education Officers have secretaries with lists of schools who have ordered the Teachers Notes for a particular series.

Unfortunately, ordering notes does not necessarily imply that schools use these programmes: it does however narrow the field of potential users. Once a school or teacher has been identified who is willing to allow classroom observation of use of the resource, Education Officers then proceed to evaluate programmes in a similar way to the piloting process outlined earlier.

There is the added advantage that teachers and children will often comment on earlier programmes within the series even though the particular observation covers only one particular programme. Teachers also often suggest other areas of curriculum need.

Print support

All BBC series for schools are supported by print material which gives programme outlines, suggestions for discussion, ideas for follow-up work and in some cases worksheets for pupils. For the most part this material is written by outside consultants through producers, and Education Officers occasionally write notes themselves. In the current climate of much curriculum change Education Officers have adopted the role of overseer with regard to print material and they frequently edit this if it is a series with which they have worked closely.

Publicity

Education Officers advise teachers on the use of specific strands of broadcasts by providing sessions at local teachers' centres and at the major annual subject association conferences. The purpose of these sessions is not only to inform teachers but also covertly train them to get the best out of the media.

Yet another objective is to get feedback and information on priority needs from teachers working in the field. Providing articles for magazines and educational journals is a further method through which Education Officers reach user groups and inform them of broadcasts appropriate to their area.

Educational updating

Within specialist fields Education Officers identify important innovations and ideas and communicate these to production departments. Each provides an overview of change and innovation in their field to help departments determine the long- and short-term needs within education. Education Officers also feed information to BBC educational magazine programmes by identifying features of interest at local and national level.

Seeking sponsorship

Occasionally Education Officers seek sponsorship from business or industry for support print material. This is usually for a specific purpose and over and above the normal provision of teachers' notes. One example which springs to mind is the provision to all schools of free print material concerning in-service training for teachers, which has on several occasions been provided by an outside source.

Development of ancillary projects

On some occasions Education Officers organise major national conferences to publicise a particular strand of broadcast resource. They also hold regional meetings in different areas of the country and sometimes organise radio links with particular series.

What is it like to be an Education Officer?

Like all interesting jobs the only problem is lack of time and resources to do everything that one would like to. The job requires flexibility, creativity, the need for tact, a capacity to work hard, and – last but not least – an enjoyment of working with a foot in the two camps of education and production.

John S. Russell

Schools Broadcasts and the Scottish Curriculum – A Strategy for Their Integration into the Curriculum

Devolution for Scotland, within the UK, is currently to the fore of the political agenda. However, the education system in Scotland has, historically, been independent. It has developed its own characteristics, many based on a cultural value: that society prospers when all of its members are given the opportunity to develop by acquiring knowledge and skills in accordance with their needs and interests.

It is difficult to generalise, but one of the principal differences between Scotland and England lies in the emphasis on breadth of curriculum. In Scottish primary schools this means that, although core 'subjects' such as English Language and Mathematics, are taught as discrete in their own right, they are also treated in the area of Environmental Studies – a cross-curricular approach to History, Geography Science, Technology and Health.

This cross-curricular approach has highlighted the importance of thematic work and, increasingly over the past 25 years, developed child-centred *learning* geared to the needs of the individual, rather than *teaching* aimed at a class. A similar philosophy of individualised learning has also developed in the past decade in secondary schools where the external examination syllabuses from the Scottish Examination Board (the only solely schools examining Board in Scotland) have emphasised the importance of individualised learning programmes for all pupils.

The second major difference is the place of Scottish culture – particularly in areas such as Language, History, Geography, Religious and Moral Education and Expressive Arts.

BBC schools broadcasts for Scotland

Given the culture and curricular differences between Scotland and the other countries in the UK, BBC has evolved a strategy to ensure that UK broadcasts from London meet Scottish schools' needs and that those from BBC Scotland complement UK productions by resourcing those areas of the curriculum which are unique to

Scotland, have a particular national dimension or which would benefit from being treated in a Scottish context.

Education Officers based in Edinburgh and Glasgow are the links who provide a common point of reference between Scottish teachers and London and Scottish producers who make schools broadcasts. The great majority of radio and television programmes for schools in the UK are made by our producers in London. Scottish Education Officers work with these producers to identify specific resource needs of, for example, the 60% of Scottish primary teachers who use series such as *"Zig Zag"* (an Upper Primary miscellany series). Similarly, they work with producers of secondary school material to ensure that UK Series such as *"Geography Casebook"*, used by half of the Geography Departments in Scotland, are useful in a Scottish context.

However, there are areas of our curriculum which are particular to Scotland and it is these which BBC Education Scotland addresses. Table 1 lists Scottish series which are being transmitted in 1991 – 92 and indicates the characteristics which fit them to the Scottish market.

Table 1: Series for Primary Schools
Made by BBC Scotland for Transmission 1991 – 92

Series	Medium	Target	Curriculum Target
AROUND SCOTLAND	TV	UP	Environmental Studies series focusing on Scotland's past and present
LET'S SEE	TV	MP	An Environmental Studies series aiming at encouraging children's awareness of their local and national environment
OVER THE MOON	TV	I	A series to reflect the culture of Scotland explor. the environment; (for Language and Expressive Arts)
MU CHUAIRT ALBA	TV	UP	Gaelic versions of selected units from *,,Around Scotland"*
SEALLADH IS SEANCHAS	TV	MP/UP	Gaelic series which contributes to Environmental Studies topics
SCOTTISH RESOURCES 10 – 12	R	UP	A resource for Language and Environmental Studies
CHECK THIS	R	UP	A live magazine programme dealing with environmental topics
A SCOTTISH RELIGIOUS SERVICE	R	UP	Religious Education – focus on traditional Church of Scotland service
SCOTTISH RESOURCES 7 – 9	R	MP	A broad curriculum target to develop listening and imaginative skills

Series	Medium	Target	Curriculum Target
HOPSCOTCH	R	N/I	To develop listening skills through story, poetry and song from Scottish heritage
FEUCH E	R	ESt	Gaelic Language radio series
CANAN IS CLEAS	R	MSt	targeted at native speakers
LEAN ORT	R	USt	
SAY IT IN GAELIC		USt	A Gaelic/English Language series targeted at learners
STANDARD GRADE ENGLISH	TV + R	MS	TV and radio programmes which focus on aspects of Secondary subject syllabus particular to Scotland
STANDARD GRADE GEOGRAPHY	TV + R	MS	(ditto)
STANDARD GRADE HISTORY	TV + R	MS	(ditto)
STANDARD GRADE PE	TV	MS	A Series made to resource an area which the UK output does not treat
STANDARD GRADE CONTEMPORARY SOCIAL STUDIES	R	MS	(ditto)
LAIMH RUT	R	MS	Gaelic Language: learners
SEADH	R	LS	Gaelic Language: learners
AIR CURSA	R	LS	Gaelic Language: native speakers

Legend:
I = Infants
N = Nursery
MP = Middle Primary
UP = Upper Primary

LS = Lower Secondary
MS = Middle Secondary
ESt = Early Stages
MSt = Middle Stages
USt = Upper Stages

Broadcasting and the curriculum – a meeting of interests

The geographically compact nature of Scotland, and the uniform nature of our educational system, mean that it is feasible to establish networks which our colleagues in England find difficult to replicate. To exploit this potential, the BBC, ITV Companies and Scottish Office Education Department have jointly been involved in promoting educational broadcasts, as a central curricular resource, for almost ten years. The vehicle has been the Broadcasting and the Curriculum Liaison Group.

It was formed after a national conference in 1983 – 'Broadcasting and the Curriculum' – whose general strategy was to encourage and support Regional and local activity in the use of schools broadcasts. The move towards fostering better practice in the use of schools broadcasts, was facilitated by the recent increase in availability of hardware for recording, allowing schools to improve their methodology and to exploit the potential of programmes. In essence, this meant that educational broadcasts could be fully integrated with other resources and used at the time when they could be most effective in the learning process. A second National Conference was held by the Group in 1988 – 'Educational Broadcasts and Staff Development'. This, like its predecessor, was attended by senior policy makers and practitioners from all of the Scottish Regions and Colleges of Education. It demonstrated that not only were broadcasts effective in delivering the curriculum: they could also be used for staff development purposes.

The Broadcasting and the Curriculum Liaison Group is chaired by the Chair of the BBC Education Broadcasting Council for Scotland or one of the Scottish Independent Television Companies' Educational Advisory Committees. It comprises: BBC's Senior Education Officer, Scotland; the Heads of Education from Scottish, Grampian and Borders Television Companies and a member of Her Majesty's Inspectorate.

It meets four times per year and, since 1983, has been involved in three major strands of activity:

- The provision of broadcasting and the curriculum files,
- initiating and supporting broadcast study groups in the regions,
- working with staff and students in colleges of education.

The thrust of the 1983 Broadcasting and the Curriculum Conference was to illustrate that BBC and ITV schools broadcasts could be fully integrated with the curriculum. The Broadcasting and the Curriculum Files move this a stage further towards actuality. BBC, ITV and SOED personnel felt that, at a time of great change in the Secondary Curriculum – Standard Grade (an external examination for Middle School) was being introduced – there was a major opportunity to show the potential use of, and need for, broadcasting resources.

Standard Grade courses have a focus on resource-based learning and the needs of the individual student. It was felt that if subject specialist teachers could be helped to realise the syllabus match of schools (and sometimes Continuing Education) broadcasts, they would readily exploit their potential in the classroom. A central issue which had to be addressed was that most Secondary broadcasts were made by BBC in London or by English Independent Television Companies and we had to demonstrate that these were appropriate for Scottish courses.

The strategy was simple but its operation was complex because of the number of people involved. Beginning in 1985, each major subject in Scottish Secondaries had a print file provided linking each programme in all of the appropriate series to its syllabus requirements. Copyright regulations then in force dictated that this was best done for programmes transmitted during the session in which each file was being written and also those broadcast in the two previous years. The operation involved BBC and ITV Education Officers working with, and servicing, part-time teams of National Development Officers and Regional Advisers who were identified by the Scottish Office Education Department. Despite Scotland's compact geography, the logistics were formidable. However, by 1990 all of the major subjects had been covered, some even updated, and twenty-one subject files had been printed and distributed to subject departments in Scottish secondary schools.

In 1990 we began an update, whose origins heartened us. The Regional and Island Authorities felt that the File was of such value that they themselves agreed to tackle the job of updating it. The Broadcasting and the Curriculum Group still manages, co-ordinates and services the project but the Authorities do the work on a shared basis. The second departure from the original File is that it is not a print-based exercise. All of the material is stored on Apple Mac disk and the programme is written so that each subject department in a school can amend the entry to fit its own priorities. The original File took five years from initiation to completion. This update will take two years and since the school users themselves have the facilities to update them, they can assume full ownership.

We have, therefore, moved from a situation where BBC and ITV educationists were marketing the worth of broadcasts, whether they were made in England or Scotland, to one where the Regional Authorities themselves have assumed the task.

Operating alongside this updating project for secondary schools, we are also working on one whose principal short-term target is primary schools (pupils aged 5 – 12). The 5 – 14 Development Programme in Scotland addresses the curriculum in primary and lower secondary schools (including as a central idea that links must exist between the two sectors). There are five main curriculum areas : English Language, Mathematics, Environmental Studies, Expressive Arts and Religious and Moral Education. Adopting a similar model to that of the Secondary Files, we have produced 5 – 14 equivalents for English Language and Mathematics in 1990 – 91 and are working on one for Expressive Arts for 1991 – 92. The National Development Programme is just beginning – only English Language and Mathematics have finished their consultative process – and yet, using the secondary model, we are well on the way to developing the use of schools broadcasts in the primary sector.

Initiating and supporting broadcast study groups in the regions

The provision of information on the 'Files' is a strategy to raise awareness of BBC and ITV schools broadcasts. However, Education Officers realised in the early

1980's that if broadcast resources were to be fully exploited we must accept the idea that both the process of learning, and the place of educational broadcasts within this, must be managed. In other words, schools must have policies to manage the integration of educational broadcasts in the learning process. In practice, it would be impossible for us to work with every school in Scotland and so we have used natural networks – the Regional and Island Authorities – which form geographical units and, more importantly, are the areas on which education is administered and funded in Scotland.

It was decided to concentrate on the primary sector for several reasons: this is where broadcasts are most used; improvements in hardware holding made it ripe for initiating developments and the secondary sector, as well as being a far more complex structure, was catered for in the Broadcasting and the Curriculum File.

Our prime objective in cooperatively working (BBC and ITV Education Officers attend Regional Group meetings and share servicing tasks) with Regional Primary Groups was to encourage and help them to develop Regional policies for the use of schools broadcasts in primary schools. We also assist them, by helping to run staff development sessions, to have these policies implemented in the Regions' schools. There are twelve Regional and Island Authorities in Scotland. Three of these now have written policy statements for their primary schools and we are currently working with another three – by the end of 1991 – 92 we will have overtaken the task in the six biggest Authorities.

The provision of a policy statement by these groups is simply the first move in a broader strategy which the Educational Broadcasters have adopted. The secondary agenda is, in many ways, more important: there are two main benefits from working with such groups. Firstly, a communications network is established – one which not only facilitates BBC and ITV Officers having access to good practitioners but where the teachers themselves speak to each other, formally and informally, about the use of educational broadcasts. This process puts schools television and radio, naturally, on schools' agenda.

The second is perhaps more important: the teachers take ownership of the process of promoting the broadcasts and developing ideas to facilitate their integration in the curriculum. Two examples: the 5 – 14 Files mentioned earlier were written by The Committee for Broadcasting in the Borders and also by Lothian Broadcast Study Group – a mark of their expertise and commitment. Secondly, Lothian, the longest running group, has not only devised Regional policy but the Study Group members identify programmes for compilation tapes (to resource topics which are frequently covered in the Region's primary schools). It also organises and runs its own staff development meetings to improve teachers' knowledge and classroom use of schools broadcasts.

The final phase in the strategy for promoting the effective use of broadcasts in regional primary schools has involved us in another project. We now do not have the time or personnel in either BBC or ITV Companies to meet regional demands to organise staff development sessions on the use of schools broadcasts and so, we have produced a Staff Development Pack. This comprises a print package and a video/audio cassette for the use of Regional or school trainers who are engaged in developing their schools' use of television and radio.

Working with staff and students in colleges of education

Arguably, the most productive avenue which Education Officers can explore to establish good practice and the impeccable curriculum credentials of schools broadcasts is pre-service training. Primary teacher training is now based on a four year B.Ed. degree course at College and University Graduates in Scotland do a one year course at College. The implementation of a planned strategy for Colleges was begun two years ago. Prior to this, BBC and ITV Education Officers had made random presentations to groups interested, but hardly effective in the long term, since it simply raised students' awareness. The long-term aims of the pre-service training plan are:

- to encourage lecturers to use educational broadcasts extensively in their methods courses (since it is by seeing lecturers exploit programmes that students will learn);
- to have 'broadcasting' built into courses as an assessable element.

The pilot project for all five Scottish Colleges was conducted in Jordanhill College – the largest in Scotland. Negotiations were held at a senior management level and the first year's thrust was based on:

- a survey of lecturers to establish their practice in using educational broadcasts;
- BBC and Scottish Television Education Officers lecturing to, and running workshops for, three out of four B.Ed. years and their lecturers;
- a day-long awareness raising exercise and workshop for all Primary B.Ed. lecturers.

As a result of the project, the College has:

- reviewed and reorganised its strategy for recording and publicising primary school broadcasts;
- written a self-assessment item on broadcasts into the second year B.Ed. course;
- worked with a BBC Education Officer to produce an Open Learning Pack on Educational Broadcasting. This pack comprises a print unit and a College-produced video, filmed in schools, which examines good classroom practice in maximising the potential of school broadcasts for learning.

The intention is that the Open Learning Pack and the evaluation of students' use of broadcasting as a part of the course will lead to the profile of school broadcasting being maintained. This means that in the future, Education Officers can work with staff in updating their knowledge of trends in educational broadcasting and with students on specialised projects.

Having established the model and its capacity for success, BBC and ITV Education Officers are currently developing similar arrangements and provision in St Andrew's, Northern and Moray Colleges in the session 1991 – 92.

In the past eight years educational broadcasts in the UK have changed – to meet the needs of teachers who are now exploiting them more effectively by using time shift procedures to slot them into the appropriate place in their workplans. At the same time as the programme makers have adjusted their programmes, Education Officers in Scotland have been involved in a two-prong strategy to promote educational broadcasts: to identify their precise curricular match for teachers and to facilitate Regional and College Staff Development. It has been enjoyable and, I believe, worthwhile, since if we do not address curricular change and changing methodology in our marketing plan, the product is bound to fail.

Brian Nixon

Active Television: Dream or Reality?

No other medium has been subjected to such widespread and sustained attack as television. Researchers everywhere have delighted in attributing most of the social ills of the world to excessive viewing. Television has been portrayed as a drug; it has been accused of destroying social intercourse and of producing generations of passive watchers; and it has given rise to a new vocabulary of abuse, most of it associated with the vegetable kingdom. But how is it that a medium which produces couch potatoes is also seen as a powerful educational tool, used by more than 90% of the schools in the United Kingdom alone?

It could be, of course, that the research findings are incorrect – something not unknown in the area of the social sciences; or it could be that a special kind of television has been developed for schools which is different from other forms of television. Cynics would claim that the latter is undoubtedly true – school television is more worthy and more boring than mainstream television.

Supporters would reply that school television is different because, at its best, it overturns the concept of passive viewing and becomes what it always sets out to be, a stimulus for active learning. It is this quest which has brought television into contact with Information Technology – or to be more precise with computers and their associated software – and, in the process, opened up possibilities which had hitherto been unattainable.

This was not immediately apparent when programme makers first confronted the reality of computers in classrooms. At that time, i.e. in the early eighties, all schools in the United Kingdom were given micro-computers, and it looked as if the government had created an artificial market staffed by a host of doubting teachers – a market that only the foolhardy would venture into it.

A few brave publishers did and most of them beat a hasty retreat to count their losses; and a few adventurous television companies did the same. Why? Again cynics might say that it was nothing more than a by-product of competition between the various companies which made up the school television network in the United Kingdom. In fact, there were sound educational reasons for taking such a risk.

At the simplest level computers could be used to ease one of the main burdens borne by makers of school programmes. Their programmes have to achieve certain clearly defined goals and one of these – at least on the eyes of most teachers – was that a certain amount of factual content should be transmitted. Television does, of course, thrive on 'fact', but too much of it can prove totally indigestible.

In other words it is not difficult to make very boring educational programmes which collapse under the weight of their own content. Producers were aware of this and had, over a period of twenty-five years or more devised methods of hiving off some of this content into other media usually teachers' guides or a work and activity sheets. Some of the resulting packages were impressive both in their size and their objectives, but they were soon to be dwarfed by those which harnessed the tools of Information Technology.

Datafiles were produced to support series like "Animals in Action" (Anglia Television) which allowed pupils in the primary school to carry out their own researches in response to the television programme; while for "Science Start Here" (Central Television) a combination of datafile and data processing allowed pupils to link their own field work to the activities seen in the television programme.

All of this – and much more – was made possible by an early decision by those responsible for ITV Schools, the school television service of the Independent TV companies, to commission a data-handling package titled KEY which was to become a standard software package in more than 20,000 schools in the United Kingdom. And, on the back of KEY, ITV Schools was to join the BBC as one of the main publishers of educational software in this country.[1]

From the outset, however, some companies were exploring other possibilities opened up by the availability of computers in the classroom – the possibility of more active learning. "How We Used to Live" (Yorkshire Television) took the idea of computer simulation and linked it to the television programmes.[2] In it pupils were given period data and with it were encouraged to make on their own the kind of decisions faced by the characters portrayed on the screen.

A similar approach has been used by the BBC in their "Land Marks" series. Like "How We Used to Live", this series is aimed at 9 – 13 year-olds and a software package relating to World War II encourages pupils to share the life of the inhabitants of a small village at that time. In the process it is hoped that children will learn about the nature of problems of life during a time of war – its constraints and austerity and its sense of community and comradeship.

At the same time there are of course ample opportunities to develop language work in the manner pioneered by Thames Television with "Mr Magus" from the series "Middle English" and the BBC series "Look and Read" with its story-based software such as the "Geordie Racer". Packages of this type allow pupils to share the world inhibited by the characters in the stories whether it be a world of fantasy or reality – and to join in their activities as they explore that world.

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[1] Cf. Chris Jones' account on KEY, this volume pp. 221 – 226.

[2] Cf. Michael Scarborough's report in this volume, pp. 142 – 147.

Similar packages have been developed to link with much more precise science programmes. In "Chemistry in Action", a science series for 14 – 16 year-olds, the pupils were allowed to develop methods of making steel and to build and run their own steelworks. This happens before they see how the 'experts' do it in the real world; as shown in the television programme. In this way students could explore the basic scientific principles of a major industry and could begin to appreciate the economic realities which led to the rejection of one method of production in favour of another.

All this software, essentially simulation software specially written to accompany an individual programme or unit of programmes, can be seen as an attempt to move from the linear form of most television programmes to the more complex branching world of the computer. It was in short the first step along the road towards the forms of activity and interactivity usually associated with new media such as interactive video and CDI.

The next major step along this road is typified by the approach used in a series called "I.T." (Granada Television). Here the television programme sets the scene for a group of decision-making activities, all of which are based on large accounts of data, of the kind available to the real decision makers – data which can be processed using the standard tools of information technology, i.e. data-handling packages, spread sheets, accounts packages and desktop publishers (as opposed to specially written simulation data).

Breaks are built into the television programme at points where decisions are needed and students are expected to develop their own strategies before switching back into the television programme to see the 'experts' applying theirs. As the television scenario changes decisions have to be remade and reassessed but always the students follow their own strategies while in the television programme the 'experts' are pursuing theirs.

One package, for example, examines the problem of pollution in a river in North West England. The students identify the problem and are then assigned to produce strategies to clean up the river. For the first attempt there are no budgetary constraints and several strategies will emerge from the groups working in the classroom, most of them costing many hundreds of millions pounds.

Switch back into the programme and the Water Authority budget is revealed – it is miniscule compared with what has been spent by the students. They reconsider their strategies and they may decide to close down the factories causing the pollution.

Back into the programme and the costs of this simple action emerge in the form of redundancies, lost tax and the closure of service industries in the local area – costs which are so vast that decisions are inevitably reconsidered once again. Throughout the exercise the students work ahead of the 'experts' and in this way they appreciate more fully the constraints – financial, social and moral – under which decisions are made.

This drive for activity and active learning packages is well-advanced but in some cases activity can only be achieved at a price – a price many programme makers find difficult to accept. Activity demands the breaking up of programmes and few directors can accept the fragmentation of what to them may be a beautiful unified concept? And there are other problems which may be of greater significance in the long term.

The development of active and interactive learning packages is a complex and time-consuming job, requiring skills not always available to television companies. For this reason many packages are the result of collaboration between programme makers and software houses. Such collaborations depend upon the project offering the chance of a reasonable return on investment and there are many obstacles to this.

Not least of these is the fact that the market is fragmented according to the hardware available in schools – a problem which has existed from the outset in the United Kingdom. The schools market is dominated by two companies – Acorn and Research Machines – and the machines they have produced have, to a large extent, been incompatible. This initial problem has been compounded by the fact that there is incompatibility even between different generations of machines produced by the same company.

The result has been a fragmentation of market which has made specially commissioned software marginal in economic terms. Furthermore, since many of the machines in UK schools are idiosyncratic the opportunity to sell software abroad has been severely restricted.

So, where do we go from here? The move towards IBM compatibility in software is beginning to remove the problem of market fragmentation and is offering new opportunities for overseas collaborations. For the ITV companies the way ahead has been built around extensions to KEY – in the form of KEY PLUS; an advanced form of the software which is available on Acorn Archimedes and IBM formats, KEYNOTE a primary school extension and KEYCALC, a KEY compatible spreadsheet. All of these will help with the development of data-based interactivity of the kind explored by the series "I.T." and by its companion series "PROJECT I.T." which is aimed at the primary school market.

With such developments and a will, on the part of the teachers, to try packages which sound difficult but which are in fact easy to use, it is possible to anticipate what was for long thought to be impossible – an active form of television. And – in case you are wondering – this is not a poor man's interactive video; it is a new and exciting media accessible to most schools and open to most television producers.

Christopher Jones

Keeping Track with KEY – A Database for School Television Programmes and Support Media

In the three terms of the calendar year 1991 the ITV Schools service broadcast 956 individual programmes – not including the second transmissions which most primary school programmes have. At the beginning of 1992 there are 77 series or units of programmes supported by print or other media (several hundred separate items), and 195 items of support software for microcomputers. This is only one of two school television services in the UK.

How do schools keep track of the range of resources? How do they choose what suits their own specific needs? This article describes the development of an open database to help school organisers, a database that uses standard school computers in a straightforward way.

Background: school television and microcomputers in education

During the 1980s the ITV Schools service reflected the increasing interest in the use of computers as a revolution in new technology in industry, business and in the home. Television programmes for schools described and explained the impact of the new technology. In the UK substantial money was made available from the early 1980s by the Government Departments of Education and Science (DES), and that of Trade and Industry (DTI), if matched by school funds, to subsidise the purchase of microcomputers.

Before this time most secondary schools had had enough equipment for computer studies courses, mainly attached to maths departments. There had been some control equipment available in science and technology departments. Now computers began to be used widely in schools as a resource across the curriculum.

A few years later than in the secondary schools, microcomputers began to arrive in primary schools, with a centrally funded project to train at least a small core of primary teachers in their potential use. The ITV Schools Television services reflected this development by including information technology elements in many programme series, usually as part of the general balance in covering a topic.

By the mid-1980s the ITV Schools service was commissioning and publishing software intended to support school television programmes alongside the other more familiar support material in print, audiotape and other media.

Expert advice soon led to the understanding that the more realistic a computer exercise the more educationally useful it was. Real data underlay the 'find the polluter' or 'pondlife' games which were models of situations where intelligent interrogation could provide answers or intervention in the variables could demonstrate alternative outcomes.

Some early software allowed students to enter data they had gathered through their own fieldwork. The developments were leading towards open software that could handle any data, that could be searched for any combination of factors, analysing it, presenting it in graphic form. Nothing yet existed that did this kind of job in a way that was easy and friendly to use and combined as many as possible of the possible facilities within one software system.

The KEY data retrieval system

Research, consultation with teachers, and observation of the use by children of various other data retrieval systems in schools showed the possibilities. The KEY data retrieval system was designed, and began to be tested in schools. Practical exercises in its use suggested a number of modifications. The most important criteria were that it should be cheap and thus universally available by free choice, that it would work on the most readily available school micros, that the facilities would be easy to use at primary level yet extend to provide advanced tools for secondary level, and lastly that it should be on a single face of one 100K floppy disk. The technical solutions were very ingenious, and pushed the potential of the school micro to its furthest limits. Within a few years over 30,000 copies of KEY had been supplied to UK schools, and a wide range of specific data packages had been compiled, mostly directly linked to school television programmes, but equally valuable if used in other learning contexts.

Using KEY to hold programme information data

The piloting phase of KEY coincided with a considerable level of frustration in our own office systems in the IBA Education Department. I had joined other education officers in undertaking some testing and evaluating the prototype version of KEY. Among other exercises I chose to use it to keep records of the programmes in the ITV Schools series. These had been kept in card indexes before this, and we had wanted to use software on our mainframe computer to replace this system.

After some time we found that KEY did the job in an easier and more immediately usable way than the mainframe. In retrospect I realise that the KEY software was actually considerably more clever and the period of piloting had got us out of the hands of computer experts and into the hands of human experts (which is what the best teachers always have been).

What was an exercise in testing the new data retrieval system turned out to be the foundation of our most useful database. As we began to use it properly we also became involved in a second evaluation exercise – working out just what it was that users want to know about school television when they make a choice.

In the first instance it was ourselves and the network of education officers who were the actual users. But it was quite early on that the general principle of opening our database to public use became established. We sent copies of the data disk to all surviving Teachers' Centres in the UK, suggesting that the disks could be copied and forwarded to as many schools in the area they served as they wished.

The data has been designed to provide a single record – the computer equivalent of a filing card – for each individual programme for one term of ITV Schools output. The core of this record is a brief description of the content of the programme. This is just one of about 20 fields for which information is provided. Many of the others are there to enable intelligent searching.

In the range of advance information provided in print this core description lies between the simple title given on the termly wallchart and the programme synopsis that is usually available in the teachers' book, when (and if) this has been purchased. Even then there is an advantage – all printed information is governed by long advance deadlines. Particularly with new programmes, the print often goes to press before the programmes have been made. The intentions may be sufficiently well-known, but production is a practical matter, illustrations of themes may change, the order of transmission may be altered, the programme may take on a different emphasis to that originally anticipated.

The data we use is continually updated. We release copies of the disks close to the end of the previous term. Requests can be met at any time, and always copied from the most up-to-date master file. It is simply the most accurate coordinated source of information available.

Searching the records

What sort of demands do teachers make when they think about using television as a resource? Here are some examples taken from correspondence:

> I want a programme about the seashore for my nine year-olds, something that shows us how we can do it ourselves later. – Is there anything about road safety for 7 year-olds? – Is there anything to match the Key Stage 3 History course? – What sort of programmes cover the environment and pollution? – I want some examples of English language written by ethnic minority authors.

Using the database there are some obvious starting points. Teachers look for the age-ranges of programmes; audiovisual technicians look for the programmes in a particular week or on a particular day. Ideally a teacher would identify a topic or a conceptual theme for which some programme might be a resource. But immediately one enters the problem area of terminology. There is no agreed thesaurus of educational terms and, even if there was, a substantial software 'front end' to the data would be required, occupying valuable disk space.

We have chosen a simpler approach – initially we had commonly used broad terms. Subsequently the National Curriculum provided a menu of foundation subjects for one field, and a sister field listed cross-curricular themes. The foundation subjects were enshrined in law, and generated 'programmes of study' which the television programmes themselves inevitably set out to reflect.

The cross-curricular themes were less easy. They were a politically fudged way of clustering all the other subjects for which there was no time in the new National Curriculum. Yet they were areas in which television had been particularly strong in providing resources for teachers – personal and social education, the multicultural dimension in education, health education, environmental education and of course media education. Our menu of cross-curricular themes has to go rather wider than the National Curriculum.

An extension to this parameter takes into account the existence of a quite separate curriculum in Scotland, conceived according to a distinctly different philosophy, areas of learning experience and modes of study. Two more fields in the database provide for Scotland and a separate edition is generated when disks are copied for Scottish users. Recently a third regional curriculum has been developed in Northern Ireland and this, too, has now been provided in the record structure.

Alongside the main datafile of programme information there are now three further datafiles. One expands the very brief information given about the supporting publications linked to the television programmes, a second lists the very wide range of microcomputer software now available to extend work suggested by viewing the television programmes. In the latter case each computer programme is given a brief description.

The third datafile is simply a list of contacts within the ITV system, varying from the Chairman of the Educational Advisory Council to the sales manager handling video purchase for a particular production company. One of the KEY utilities allows selected addresses to be printed out as labels for envelopes. Or the file can provide the telephone number of each contact if the enquiry is more immediate.

Using the database for other information outlets

The programme information database has been used for other administrative tasks. Our first use was in automatically providing brief descriptions to add to the catalogue of our school television video-library. This is widely used by the education officers who work with teacher conferences and training courses.

In the late 80s we experimented with providing the KEY data in telesoftware format – that is, the transmission in the VBI lines of a linear data stream for reception by an adaptor connected to a school micro, which would download it direct to disk. Although about 3 in 10 secondary schools did have this adaptor available, very few used telesoftware as a means of receiving the files. Hence we fell back on using more attractive open teletext pages.

Now for over a year we have used the data to generate teletext pages for 4-Tel, the sector of ORACLE that supports Channel Four, as an information service for schools. A teletext page cannot of course be searched, and contains less information than the full datafile, but it covers all school television programmes broadcast that week. Technically what is important about this service is that about 50 pages of teletext ready for broadcasting are provided each week with about 5 minutes of actual work. The process of assembling the relevant data and constructing the pages is entirely managed by software.

With the ending by the Broadcasting Act 1990 of the BBC and ITV monopoly in their own magazines over their programme listings, both Radio Times and TV Times began to carry the 'What's on' information of all four television channels. Space had to be found. Details of school television disappeared. The most widely read educational paper, the Times Educational Supplement decided at the same time to start using its inside back page for complete listings of all school television. The editor appealed for help in compiling this information week by week.

The KEY programme information database now provides these in the same automated way as for teletext. The relevant data for the week is assembled and reformated by software to the exact requirements of the Times Educational

Supplement and printed out as a newsprint column. A job that might have taken a day's careful manual work in the past is now completed in less than five minutes.

So what we see in the end is that a decision to keep the master data in microcomputer format rather than succumb to the overweight and obscure computer system provided as an office system has enabled us

- to adequately serve our own administrative and record-keeping functions;
- to provide a framework (the record structure) which ensures reasonable uniformity in the kind of information gathered from the producers who are closest to their own programmes;
- to open up the database for use by our 'customers' within the range of their own school micros;
- to allow the cost-effective extension of selected data into teletext and specialist newsprint.

Upward compatibility

It is the widespread availability of the KEY database that allows us to make the school programme datafiles easily available. The first version of KEY was designed for the Acorn/BBC-B 32K micro, still the most widely available in schools. The next stage up was readily achieved since the BBC Master 128K was straightforwardly compatible.

Meanwhile the original alternative to the BBC range from Research Machines, particularly endorsed in some areas of the UK, was replaced by the RM Nimbus. This was added to our repertoire towards the end of the 80s. 1991 has seen the long-awaited arrival of KEY PLUS for the Acorn Archimedes PC, using a RISC operating system and enormously advancing the potential use of the data retrieval system. Next in the pipeline there is a version of KEY PLUS for IBM-PC machines and compatibles.

The value of this version is that it will make available the wide range of data files generated by ITV Schools initiatives to a European, and probably wider world clientele. Colleagues in other school television organisations who often have IBM-PC-based office systems may now be able to have access to our datafiles on equal terms with UK teachers. They, too, could start keeping track of what our school television system is doing.

Hermann J. Weiand

Enhancing the Acceptance of School Television in Teacher Education and In-service Training: The Example of English

School television has existed for over 20 years, and during this time it was apparently always taken for granted that there was an adequate demand. Recently two acceptance studies were carried out at the same time, in the south and the north of Germany[1]. Both arrived at similar results, which, however, were interpreted by the authors in contradictory ways. Both detected a stagnation in the demand, in spite of a generally favourable assessment of the programmes offered. The majority of the participants in the representative surveys name the same shortcomings:

- a lack of advance information;
- the programmes are not readily available;
- support material is either inadequate or unsuitable;
- difficulties in the didactic structuring of the lesson;
- difficulties in the technical preparation and execution.

In addition, it must be considered that the combination of on-air broadcasts with simultaneous lessons was always a fiction, and that it only gradually became possible to record broadcasts as efficient video recorders became available.

If all these shortcomings are taken into account, the acceptance figures in the studies mentioned above are really quite impressive. Almost half of the teachers surveyed use school television 'sometimes' to 'frequently', 60% of them award school television the mark "very good", and 93% of them work with video recordings.

Hence one should by no means conclude from the current situation that it is no longer possible to improve acceptance or that school television should even be abolished, as interpreters of the "North" study do[2].

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[1] Kolley, P.; Waldmann, N.; Hasebrink, U.: Nutzung und Akzeptanz des Schulfernsehens in Norddeutschland. Hamburg 1989; Hauke, H.P.: Die Akzeptanz von Schulfernsehen. Ergebnisse einer Untersuchung in Baden-Württemberg. Diplomarbeit. Freiburg 1988.

[2] Dichanz, H., Hasebrink, U.: Nutzen Sie Schulfernsehen? Fakten und Trends in Norddeutschland. In: Praxis Schulfernsehen, 161 (1989). S. 85 – 88.

Regrettably, the NDR has terminated the school television contract, has largely discontinued transmitting and has stopped producing altogether. This seems to be absurd, since almost all schools are nowadays well equipped with video recorders, many teachers already possessing their own, and therefore technically good recordings are ensured. On the other hand, film and television material – in contrast to all the various hindrances connected with film projection in the past – can now be almost ideally manipulated for learning in the classroom.

Assessing the future value of the school television broadcasts has to be seen against the background of the rapid development which has taken place in the field of video in the last few years and which is not yet over.

For all these reasons one should rather agree with the conclusions of Hauke[3], who surveyed 1,200 grammar school teachers in the south of the Federal Republic of Germany and had a return rate of 50%. Hauke recommends that the shortcomings detected should be deliberately eliminated, assuming that this would make a considerable improvement in the acceptance possible. He takes the subject of English as an example, in which the teachers surveyed are supplied well in advance of broadcasting: they receive far more than the brief notes in the school television magazine "Schulfernsehen Südwest". Not only are they sent detailed information and a didactic concept developed by the author, which have found to be most helpful, but also recommendations for teachers and instructional material developed in regional and central teachers' in-service training courses.

Consequently, school television programmes for English are used by far the most frequently, with repeated, explicit reference to the material mentioned above and the in-service training courses accompanying it[4].

It is evident that a central role is attached to the continuous education of teachers to ensure an improvement in the acceptance of school television. In the following, I would like to present the kind of "support" which for years has been helping school television programmes in English to achieve above-average acceptance, especially since this approach, according to the frequent feedback, not only benefits the teachers and counsellor teachers of English, but in many respects can be transferred to the didactics of other subjects.

The initial situation for teacher vocational training and in-service training

For about 15 years I have been conducting didactic courses on English in connection with school television and on the learning of languages with video at the

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[3] Hauke, op. cit., pp. 151 – 154.

[4] Cf. Hauke, ibid. pp. 113, 143, 149, 151

Sprachdidaktisches Zentrum (Centre for Language Didactics) of the Freiburg Teacher Training College. In conjunction with these I have run many regional and central teacher in-service training courses in Baden-Württemberg and other German 'Länder'. (The resources of the Audio-Visual Centre of the Freiburg Teacher Training College were of great help.)

I was already familiar with some of the results in the above-mentioned acceptance studies through the considerable amount of feedback and from my own experience:

- Without specific information and instructions the average teacher hardly knows what great opportunities school television in conjunction with video can offer for language learning, especially with regard to the ability to speak them. Prejudice is often the consequence.
- The didactic support material is usually inadequate for intensive work in the lesson. Not even the subject teacher, who is also a "television buff", can be expected to work out his own material to any great extent in the stress of his everyday school work.
- Above all, television counsellor teachers should know well in advance when new programmes are scheduled and what they are like. They should be able to jointly prepare materials for their in-service courses.
- So that as many teachers as possible may learn how to make proper use of the potential of television as a medium of instruction, student teachers should be familiarised with it during their studies, as should qualified subject teachers in continuing education courses.

I have always assumed that the use of school television and video recordings is only justified if it makes intensive language learning possible, especially with a view to achieving learning objectives which the conventional lesson using text could hardly attain, such as

- viewing/listening comprehension on the basis of communicatively genuine language events in their authentic social environment, by all kinds of speakers in all kinds of situations and roles;
- guided and spontaneous speaking on various aspects of events similar to real life (plot, dialogue, themes);
- the learners' independent handling of language, in small groups, by operating equipment and tapes themselves;
- the use of specific video techniques.

Form of the courses and presenting their contents

Basically, and whenever possible, courses on the didactics of school television should be held as compact seminars, either during studies – advisedly 3 – 4 days at a time before the beginning or after the end of a semester – or as continuing education courses. Those attending the courses should constantly be shown films and reminded to process them further for themselves. This can hardly be achieved in double lessons at one-weekly intervals. According to the feedback from students, teachers and teacher counsellors, this form of meeting is very effective for motivated, cohesive and sustained learning, and is superior to other forms.

Several video and audio recorders as well as video and audio cassettes should be available for the participants' group work. Students and teachers should, after an appropriate introduction, carry out lesson planning with school television and video recordings themselves.

Experience shows that only a limited number of students can take part in a course of this kind, and only a limited number of subject teachers can attend the necessary training courses at regular intervals of several years. This means that dissemination of information by the subject counsellors is of particular importance.
Where there are school television counsellors (e.g. in Rhineland-Palatinate), they should be made familiar with new productions in advance and, as far as possible, come together once a year to prepare together for the annual programme output.

For all these groups the following procedure can be recommended:

1. **Overview of the current school television programmes available for English.**
   - Video demonstration, either of short, exemplary sections from the individual series or by means of a demonstration cassette presenting individual series in concentrated form, with the emphasis on the new programmes.
   - Detailed discussion with the participants of the merits of each programme after each demonstration: contents (including relation to textbook and curriculum), mode of presentation, conceivable learning objectives (with regard to language and contents), class level and types of school.
   - In conclusion, preliminary selection of series, instalments, main points of emphasis for the subsequent joint planning of lessons in groups.
   - *Handout, transparency:* list of the school television programmes.
2. **Presentation of the fundamentals of a language-learning concept with school television and video recordings.**
   - Video-specific learning aims and forms of learning: oral/written, imitative-receptive and productive-creative. Discussion of relevant literature.
   - *Handout, transparency:* outline of the learning concept, compilation of video-specific written and oral forms of exercises.[5]

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[5] Cf. Weiand, H.J.: Schulfernsehen Englisch – Sprachlernen mit dem Videorekorder (Projektbericht). In: Die Neueren Sprachen, 90/1991/3, pp. 292–307.

3. Group work.

- Division into groups which use video and audio recorders to prepare the raw material of school television recordings for concrete and detailed language learning: guidance for action by teachers' and pupils' work forms and materials. Emphasis: guided and spontaneous speaking based on action and language events similar to real-life scenes in the school television programmes.
- *Working material:* video tape/audio copy, synopsis of concept of lesson, sample sheet of exercises and forms of practice, list of communicative expressions, compilation of video-specific work forms to stimulate, trigger and guide imitative and free speaking.
- Pattern and model: one of the latest teachers' aids of the Centre for Language Didactics. As far as available, copies of already existing materials can be helpful (e.g. from school television magazines).

4. Group work with equipment and tape.

- Seeing the films again. Selecting parts. Laying down learning objectives for language and contents. Planning the lessons against the background of available working material.

Experience has shown that working together with tapes soon becomes very intensive. If possible, after each 1 1/2-hour session breaks may be taken, which can be occupied with conversation over a cup of coffee, so that the social component enlivens and strengthens the common experience of learning. The groups should all meet together in full session at least once a day to discuss the results of their work and the experience gained.

In the feedback the following reasons are given for the positive response to this form of work:

- Through the "raw material" of the video the participants are confronted with basic questions of language learning.
- Working together creates a lively exchange, and all profit from the mutual experience and expertise. They frequently learn to see their teaching activities, which have sometimes got into a rut, through "fresh" eyes and are motivated anew for the everyday teaching work that lies ahead.
- Last but not least, the "lively" teaching material, the easy availability of "living" language and the great variety of independent working forms for the learners also contribute to this process, and the latter experience the same kind of motivation when recordings are skilfully employed.

Once the courses are over, the material compiled should be neatly arranged according to the basic concept and made available to the individual participants for courses of their own. How that can be organised depends on the circumstances surrounding the particular course. It seems important that the counsellor teachers and the organisers of teacher training courses should learn about new programmes in good time and be in a position to offer them to their colleagues in their courses as something new.

The author had access to this kind of information through his work as member of a selection commission at the Südwestfunk, where – as a consequence arising from the data of the above-mentioned acceptance studies – the post of a consultant for school television has been established, whose task is to bring together all those involved to ensure maximum cooperation.

The linguistic-didactic value of video and school television: results of a project

After years of successful didactic teaching in the form described here, the author carried out a larger project to examine the validity of the learning concept developed so far and the feasibility of the language learning aims mentioned. From December 1989 to April 1990 a three-week teaching project was carried out at each of the three middle-school class levels (7th grade, four 9th grades, a 10th grade), using three television series broadcast by Südwest 3 (South-West 3). The names of the series were "2201", "The Ballinish Bowl" and "Moving to Marlborough", recorded on video and turned into documentary films of 45 minutes each.

The didactic evaluation was based on the responses of subject teachers, on controlled observation by qualified assistants, on detailed feedback from the pupils, and by the subsequent assessment of the performance development of the classes (performance report). The assessments showed a large measure of agreement, the findings from the three teaching projects largely coinciding. They were clearest, from the sheer volume, in the four 9th grades, which worked with "The Ballinish Bowl".

Neither teachers nor pupils had previously worked with video or in front of running cameras. At first the pupils tended to be reserved, even inhibited, but their pleasure in films and the new and open way of working increased. The motivation to learn a language with video remained high throughout the three weeks, in spite of continual interruption of the short pieces of presentation. At the end, more participation and involvement, spontaneous willingness to speak and more speaking itself were clearly observed, especially among the less able pupils.

Feedback from the pupils

To assess the pupils' interest, a questionnaire was filled in anonymously on a voluntary basis, containing nine items with multiple responses on the film, learning languages with video, work forms and learning success. Out of 92 pupils from the four 9th grades, 77 (= 84%) returned their questionnaires. This high level of voluntary participation after three weeks of detailed, intensive language learning with recorded school television programmes is a clear indication of the pupils' strong interest.

The film ("The Ballinish Bowl") was found to be "kitsch" by 27%; 14% found it boring, 4% disappointing, only 16% exciting and 8% realistic. 75% did not want to identify with the actors at all, and 35% only partially. Nevertheless, 64% found it interesting.

Learning with school television and video recordings was generally judged positive: in spite of their rather negative attitude towards the film, the pupils thought the medium and the method of working had an above-average attractiveness. Not one rejected lessons with film and video, only 12% found them not so good, but 58% good and 30% very good, in spite of the film material being constantly divided up and repeated for intensive learning. The great majority (73%) thought the three weeks of video work were more interesting than working with the textbook (". . . a lot of variety . . . more interest . . . more cooperation . . . you could learn a lot of different things at once . . .").

As to the manner of learning, the pupils arranged the individual skills and working forms in the following order (ranging from 1 to 8):

independent group work with video and sound cassettes:	76.5%
seeing a film in English:	72%,
partner work:	66%
making notes:	58%
speaking during the film:	55%
writing dialogues:	52%
listening to sound cassettes:	49%
reporting on the results:	47%

The learning success was measured through self-assessment:

- 64% of the pupils said that they learnt to express themselves in different situations,
- 53% said they had learnt a lot of words,
- 22% said they had learnt to find their way around in England,
- 13% said they had learnt how to establish contact with English people.

The large majority wanted to work in this way with school television and video several times in the year. These results speak for themselves.

The performance report: According to the subject teachers it was possible to observe, after the project was concluded, a clear long-term improvement in the readiness and ability to speak, even among those pupils who were otherwise less inclined to do so. The average assessment of the classes after the project was as much as half a mark higher than before (out of a scale from 1 – 6) and remained higher up to the final examination.

All the 9th grades achieved altogether good results in the final English exam and above-average results in the oral exam. Their gain in language competence was especially shown in their capacity of spontaneous expression. Thus the fears of many teachers that the use of school television programmes or video recordings would detract from the learning success at school were clearly proved wrong, and the suitability of film and video for achieving particular goals was clearly confirmed.

Without exception the pupils clearly preferred learning with recordings of school television programmes to textbook lessons. It was especially impressive that their motivation was fully sustained even after weeks of intensive language work with short pieces of video.

Chapter 5:
Models of International Cooperation und Coproduction

Jörg Goralewski

"ZOOM – Your English Magazine": Nice and Nasty Experience with an International Coproduction

The story of the English magazine "ZOOM" is also the story of a coproduction from the very first moment when the idea for such a programme was born: it was in May 1980 when the foreign language producers from the WDR and Radio Bremen together with some teachers were overcome by a fit of magazinitis at a conference in Hesse. The real reason was the knowledge obtained through – non-representative – surveys of teachers that there was a need for broadcasts on British life and institutions for children in the 8th and 9th grades whose standard of English, however, was not adequate to follow longer documentations with native speakers.

To cut a long story short: it took about two years before Radio Bremen could offer two pilot broadcasts and another year before the WDR transmitted the first productions of their own in April 1983. At first "ZOOM" was 20 minutes long. You could tell from the content and quality of the broadcasts that they were still in the experimental stage.

From the beginning there was cooperation with Radio Bremen. Sometimes an attempt was made to produce broadcasts jointly, sometimes only individual broadcasts were exchanged, but then – as in 1984 – four Radio Bremen productions in succession were also taken over by the WDR. Conversely, Radio Bremen, of course, also took over complete issues of "ZOOM" from the WDR for the so-called North Chain. It was not until 1987 that the first negotiations on a contract for a coproduction took place, although now no longer just between the WDR and Radio Bremen but also with the Sender Freies Berlin and Dutch School Television NOT. Attempts to bring in the Bayerischer Rundfunk and the Südwestfunk were unsuccessful.

As complicated matters of copyright and licences had to be settled, some of which required protracted preliminary clarification at the individual stations, the negotiations dragged on into June 1988. Then the WDR was able to submit a four-page contract, the main provisions of which were:

- Of the eight instalments to be transmitted in the 1988/89 school year, the WDR was to produce four, the RB and SFB one each and NOT two.
- All the German producers would acquire all the copyrights – with the exception of the copyrights for video clips to be settled over the GVL (society for the exploitation of performing rights) – for the ARD partners for unrestricted transmission and for NOT all rights – including those for video clips – for two transmissions.
  The NOT would acquire all the rights for the instalments that it produced – including those for video clips – for two transmissions by the German partners. The contract did not contain any agreements on the form and content of the broadcasts but only the dates by which the broadcasts had to be delivered.

The legal aspects were dealt with in such detail in the draft contract, because there had been problems in this area in the early history of "ZOOM'. In this phase many instalments were adapted or taken over not only by ARD studios and stations but also by foreign, sometimes private, producers. It had been seen here that the exchange of programmes usual between the Third Programmes and the frequent repeats in school television could not always be settled with good will and a telephone call.

However, it was neither legal nor programme considerations but political ones which prevented this draft from becoming a legally binding contract. When the "ZOOM" partners had reached agreement, first the NDR and then Radio Bremen as well terminated the school television contract for the North Chain. Thus the basis of the contract no longer applied for Radio Bremen's school television. That did not mean the end of the ambitious coproduction project. The WDR undertook to produce one extra broadcast; the SFB brought forward one of its deadlines and then the contract was put into force by the three remaining parties.

Of course, there were difficulties – not only with the delivery deadlines. The WDR imagined it had developed certain standards with regard to content and form for the "ZOOM" broadcasts in the course of the years which it thought had not been upheld in every broadcast the others had made. The partners could not always agree on this point and thought the WDR people were adhering too stubbornly to forms once they had been developed, and were not innovative and venturesome enough. Both sides cited their respective clientele as witnesses for their arguments, so that the discussion usually ended with assurances of mutual esteem and the promise to take the criticism to heart and to pass it on.

"ZOOM" survived this first coproduction phase and grew stronger in the 1989/90 school year. The Hessischer Rundfunk entered the contract as a paying but not producing coproducer. France Régions 3 (FR 3), Nancy, and Magyar Televizio

(MTV), Budapest, announced their entry into the circle of producing partners at a meeting in Hilversum.

In Hilversum the main points of the cooperation were once again discussed with the nine partners, and an attempt was also made on the basis of the experience up to then to rule out from the beginning the possibility of any conflicts relating to contents and form by laying down certain rules. As a result the minutes of the meeting contain agreements recognised as binding about the magazine's graphic presentation, the broadcasts' length and the arrangements of their contents, the minimum and maximum lengths of the individual contributions, the use of one language, the presentation and on the opening titles and closing captions. Each magazine was to consist of four, at the most five, individual contributions including a video clip with sub-titles ("Song with Words"), which had to be at least 5 min. and at the most 7 min. 30 sec. long. Not more than one contribution was to come from the producer's country ("English in France", "English in Hungary" etc.), the subjects should contain information on the country (social aspects, culture, education, sport) and be entertaining.

The pleasure at the fact that "ZOOM – Your English Magazine" was now a coproduction of six broadcasting stations from four European countries did not remain unmarred for long. Although at first witty ideas for the presentation and well-made, interesting reports came from the new members, the voluntary exercise soon turned into a compulsory one which did not always give rise to pleasure. Weaknesses in the contents were compounded by mistakes in the form. Sometimes the opening titles were missing, sometimes the broadcast was far too short, and sometimes our technicians moaned about the quality of the sound or pictures.

The partners in Berlin and Hilversum remained loyal to one another. In Nancy the beginning of a new and costly morning programme was the reason for "ZOOM" falling behind schedule. And finally the colleagues in Budapest started off with a whole bundle of problems: they were and still are comparatively badly equipped technically; they had and have very little money, hardly any hard currency, so that they cannot fund the filming work in England; they were internationally not very experienced and their production units are in a permanent state of reorganisation. The upshot of all these factors was that "ZOOM" from Budapest not only failed to produce wild enthusiasm, but one edition was even unfit for transmission.

The Hungarians' shortage of money and hard currency will no doubt lead to problems in the future as well, at least for the ARD partners. While a magazine with three contributions "English in Hungary" is, it is true, annoying, but can just about be tolerated, the kind of sponsoring occasionally practised by the Hungarians goes against the ARD guidelines, so that every contribution has to be examined to see whether responsibility for a transmission can be accepted.

"ZOOM" – A Seven-point Guide for Co-producers

1. Each programme starts with the same theme music and title sequence:

   - ZOOM
   - Your English Magazine
   - Today from . . .

   The terminology used in the credits follows standard British TV norms.

2. The programme usually comprises three reports, plus a 'Song with Words'. Each of the reports should be no longer than 7 1/2 and not shorter than 5 minutes long. Length 28'00" (min.) – 29'30" (max.).

3. "ZOOM" starts with a one-minute trailer, which briefly introduces each of the items in turn. Short clips or stills taken from each item should be shown in the trailer.
4. Unusual words or expressions should be specifically introduced by the presenter.

5. "ZOOM's" main aim is to provide reports in English as spoken by native speakers. If non-native speakers are to be included the reason for their inclusion must be justified by the context of the report. As a rule, the length of statements made by non-native speakers should be kept to a minimum.

6. Clarity of speech should be at all times closely observed. The level of vocabulary should be pitched at 15- to 16-year-olds who have had at least three years of English.

7. The basic characteristics of "ZOOM" can be summarised as follows:

   a) An English language programme for youth of a journalistic, educational and entertaining nature.
   b) A 30-minute programme which provides a general background in current affairs, pop-music and performance in English-speaking countries. It also includes reports on English language events in the co-producer's own country.

The fact that a broadcast was cancelled did not worry the WDR very much, because our programme planning had not been very tight. So there was no gap in West 3. But SFB and HR needed a broadcast and the SWF and BR, who were to take over the broadcast, got into difficulties. It was a fortunate coincidence that the WDR had booked a studio to record "ZOOM", and so an additional issue was compiled with a new presentation on the spot from contributions that had already been transmitted.

Telephone conversations marked by irritation and insistent letters induced the coproducers to talk anew about the conditions and basics of the cooperation in April 1991 and to decide on a seven-point guide (see below). At the same meeting the NOT withdrew from the coproduction – not because the Dutch colleagues did not want to carry on, but because "ZOOM"'s level of acceptance in the schools in the Netherlands was too low for the management of NOT. It was 20% and at least 25 – 30% is expected. Figures we can only dream of in Germany when you see the audience ratings and feedback from the schools.

What for the time being is the last chapter in the international coproduction was written in Nancy in October 1991. Again the specific conditions of the individual producers were discussed with great understanding. Again each person whose mistakes and weak points were pointed out promised to improve. And again we decided unanimously to carry on in 1992. For "ZOOM – Your English Magazine" is at present the only international coproduction on school television that functions. By the way, there's a rumour going round that Polish school television wants to join in "ZOOM" as well.

ZOOM 1991

March 1991 – Producer: NOT

1. Tower Bridge
2. Sally-Ann catering
3. Song with words: "All this time" (Sting)
4. Traditional uniform: Doorman Sutherland
   Yeoman Warder Norman Jackson

May 1991 – Producer: SFB

1. King's Cross/Channel Tunnel
2. Oxford University Debate
3. Song with words: "I've got you under my skin" (Nenneh Cherry)
4. Homelessness: Theatre Group from Scotland;
   Interview with Michelle Drew

June 1991 – Producer: MTV

1. Radio Bridge: The First English Language Radio Station in Budapest
2. English Idiom – Slang Expressions, Different English Dialects
3. American Cameramen in Budapest
4. Song with words: "The Dead Heart" (Midnight Oil)

September 1991 – Producer: FR3

1. Juggler: Max Oddball gives Amanda some Lessons
2. The International Brain Festival – Renowned Tony Buzan on his Technique of "Mind Mapping"
3. "Penahligon's" – A Prestigious Perfume Store since the 1800's
4. Eurodisneyland – the Biggest Mega-Amusing Park in the World.

November 1991 – Producer: WDR

1. Pentsthorpe (An Environmental Project in an Unusual Nature Reserve in the North of England (Norfolk).
2. Song with words: "How Much Is Enough" (The Fixx)
3. Lord Nelson – Life Story of one of Britain's Most Celebrated Heroes
4. Jazz in Cologne: Charlene Harris Looks at the Jazz Scene in Cologne

November 1991 – Producer: SFB

1. Canal People
2. Spitting Image
3. Song with words: "Shiny Happy People" (R. E. M.)
4. Mozart – Billiards
5. Billy the Goat

Tom Stanier

"A Tale from Europe" – The Story of a Co-production

I want to tell you a story. It's a real-life story, and it's also a story with a happy ending. A rare combination these days, and perhaps that makes it all the more worth telling.

Once upon a time, there was an EBU Conference in Basle. It was a long, long time ago, way back in the distant past when my hair was untouched by grey and I didn't need glasses for reading. That was in 1981 when I was one of the group leaders. Luckily enough, it was a very good group. We all got on well together, and we had a good discussion of the theme under consideration. But perhaps more importantly, we were stimulated by each others' ideas. We learnt that there were different ways of approaching the same professional problems, we watched each other's programmes and we pinched each other's ideas. (And after all, why not? If you have got any sense in this game you are a professional kleptomaniac.)

At the end of the week we knew that we had had a good time in every sense of the word, and we parted regretfully. The end of the story. Well, not so. One of our group was determined to write a few more chapters. I don't know how many of you know Suzanne Forslund from SR/UR but when she gets her teeth into something she hangs on like a Rottweiler. It is safe to say that no French Canadian has made a bigger contribution to European educational broadcasting.

Anyway Suzanne had made up her mind to keep things going and wheels were set in motion. There was a hard core from the group with an interest in the primary field, and we met in Paris twelve months later. It was all done on the cheap. We squashed into someone's flat and sat on the floor . About eight of us in all, if I remember correctly, and after two days we had come up with a project on which we believed we could all work together. The countries concerned were Sweden, Holland, Britain and Finland. The idea was that each country would find four schools prepared to do a project in which they linked up with a school in a different country. They would exchange parcels full of visual goodies in which they told the other school about their own country, and by making friends with children in another country, they would be inspired to find out more about that country. A child-centred approach to geography, which the viewing audience would then adopt.

We called the project "Handle With Care" – the idea being that the contents of the parcels and the young audiences minds were equally fragile and precious. Each country filmed the activities in their school – both the sending and the receiving of parcels and then sent copies of the film they had shot to the other participating countries. This allowed each country to make up the finished programmes to their own individual requirements. The end result was that each country had four programmes with a foreign filming element that had cost them nothing. It worked economically and it worked in television terms. We set up a mechanism for linking up schools in the four countries and after the programmes had been transmitted, over 1200 schools wrote in, asking to be linked up. It's the biggest international link-up of schools ever achieved in the entire history of the world! So there!

When the "Handle With Care" project was over, we were again tempted to sit back, pat ourselves on the back and say 'That's that'. It was not to be. Once again our Suzanne from Stockholm was snapping at our heels. Thanks to Suzanne's energy we were cajoled into organising another series of exchange programmes, and when that vein was exhausted Kees Schippers suggested an environmental series for 10 – 12 year-olds. The environment is a subject of concern to all young children and we decided to shoot children in seven different countries (including America and the Soviet Union) as they each worked at some kind of environmental project in their own country.

By now we had amassed quite a lot of experience. Certain things were becoming very apparent.

1. Small is beautiful. The more people you have in each coproduction, the easier it is for the thing to get out of control. As in so many things, there is a critical mass. Exceed that at your peril.

2. Keep it cheap. Hold the meetings at weekends. Not only does that make the air fares and hotel bills much cheaper, but if you are doing the work at a weekend you are more likely to convince your bosses that you are not on the longest freebie in the history of the EBU.

3. Someone has to be the 'driver' for each project. Progress reports have to be issued, and whips have to be cracked when some of the participants get behind hand. Somehow you have to elect a leader who has the time and energy to push through a quite complex process of administration.

4. Face-to-face meetings are essential. The personal contact is crucial in two ways. Firstly, it enables you to explain to your partners exactly what you want in a way that faxes, phone calls and letters never seem to achieve. Secondly – and I think this is the most important factor of all – the meetings form bonds. They

> put you under a personal obligation to the other people. You feel you just can't let them down. And believe me, that matters.

Everyone in our sort of business cares about their own programmes. We are fiercely protective to them and guard their interests with maternal/paternal devotion. But it is very easy to be late with deadlines, to settle for delivering material that's not quite the best you could do when the recipient is maybe 1000 miles away in Helsinki. In our case this didn't happen. Because I have learnt to value Kirsti Tulonen as a friend and colleague, I know that I can't let her down with anything less than the best. And the same goes for all of us.

And that brings us to "Tales From Europe". After the environmental project, we looked around for some other theme that would work in a multiplicity of different European countries. 1992 was looming on the horizon with a clear significance for all Europeans. Many of us had been wondering how to approach this very adult event in a way that would have some meaning for young children. The answer – first suggested, I think, in a small dark hut in a Hungarian vineyard – was an anthology of European stories. A different country would feature in each programme and the story from that country would be matched with documentary film that served to introduce both the country and the story. The economic benefits were obvious. We could each have the benefits of foreign filming without the costs, and because we were all pooling our material for everyone else to use as they saw fit, there was that much more money available to spend on your own programme. It enabled one to aim for higher production values than would otherwise have been possible.

As I write this piece, the finished tapes are winging their way from country to country. The last two weeks, indeed, have been a bit like Christmas. I have been opening parcels with hands that trembled with expectation. And I have not been disappointed. For this I am very grateful because I happen to believe in this particular project very deeply.

For a start there is the raw educational energy inherent in any good story. Fairy tales and legends are the rich soil from which young personalities can grow and develop. Deprive them of such stories and they will suffer from spiritual malnutrition. But there is another more important factor involved. Recent tragic events in Yugoslavia are a forcible reminder of the dangers of nationalism which are always lurking just beneath the surface. Yes, countries are different and should be proud of those differences. But equally they should be aware that Europe is a family of Nations. And the common legacy of stories is part of the cultural cement that binds the different countries together. The young generation can appreciate this (more easily perhaps than their parents) provided we can get at them with the right message at the right time. This, I hope, is what these programmes will do.

So what happens now? Where do we go from here? Frankly, I don't know. Maybe there is another chapter for our own little circle to write: or perhaps some other group will emerge from the compost heap of the Basle seminar, and they can take over where we left off. What I do know is that the last ten years have been the most stimulating and productive of my professional life. There have been plenty of problems and difficulties along the way. The path of True Co-producers Love never did run smooth, and ventures such as this will always involve an element of imperfect compromise. Having said that, I am proud of the programmes we made and grateful for the friendships I formed. It has quite literally added an extra dimension to my life.

Merci, Paulette. – Dank u wel, Kees, Ineke, Hans, and Rob. – Kiitos, Kirsti. – Tack, Suzanne and Britt. – Koszonom, Judit.
Dank u, Paul.

Suzanne Forslund

"Handle With Care" – Children's Programmes on Children's Conditions

The following report concerns the communication project "Handle with Care" of Utbildningsradion (UR), the Swedish Educational Broadcasting Company. "Handle with Care" are the words found on packages containing fragile or special things. That was why the name was considered suitable for a series of television programmes during which UR followed and documented, with the help of television, a letter and package exchange between different groups of children in the 9 – 12 age-group in various countries.

The project started with just one programme for immigrant children in Sweden under the title "Hanteras Varsant" (Handle with Care), but soon developed into a series of programmes where children exchanged letters with other children at home and abroad.

Altogether we have produced 55 programmes in 10 countries, in 70 classes with about 70 teachers and roughly 3,000 pupils, and under the name "Handle with Care" it became known as an international cooperative project within the EBU involving television companies in seven European countries: Sweden, Finland, England, the Netherlands, France, Hungary, and Switzerland.

All the programmes produced since the start in 1984 have been broadcast, some have been re-edited and been broadcast as repeats. Within the programme series there is continual new production and broadcasting.

A report was written by the television producer responsible for the project, who also led and developed it over a 10-year period. The documentation consists also of a videocassette which describes how children in different countries communicate with each other.[1]

The aim of the project

The producer's goal was to make television programmes which contained the model for a working-method in schools, where children develop their language by making an inventory of different ways of expression and communicating them to other children.

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[1] Forslund, Suzanne: Handle with Care. Creativity and Communication in School. Stockholm: Utbildningsradio 1991 (Research and Evaluation Report No. 8/91).

The children would have their own near-environment as a starting point and describe their own thoughts. In this way, those children watching the programme would have the opportunity to identify themselves with children on the screen and receive impulses the child viewers choose and form from their own reality.

The programmes' intention was to spread knowledge about working-methods, but the primary goal was to encourage a process-directed working-method. The actual viewing was not the most important aspect. Through the programmes and through communication with other children, other classes and teachers could be inspired by this working-method.

The original questions in "Handle with Care" can be formulated as follows:

- Is it possible to make a television programme together with children for a broad public?
- Is it possible to make a television programme which is based on a process in school (creative working-methods and communication), the results of which could be used in programme production?

Basic considerations

To start with, the conception for the programme was derived from considerations in developmental psychology and cognitive theory. Based on Piaget and Brunner, Monica Rödstam[2] discusses a theory ". . . where the individual is basically viewed as an active constructor of his or her own perceptions and competence from a starting-point within his or her relationship with the surrounding world. . . . Latent children and pre-puberty children gather knowledge according to what they find interesting to know. This interest is usually connected to their previous knowledge and to that which, just then, appears to be worth adding to their store of knowledge. They restructure this knowledge with the help of different actions and operations . . .".

In this relationship with the surrounding world, television and videotapes today play an important role in the lives and for the development of children both at school and during their leisure time. As they can be reached by the media at different times, the cultural gap between school and other areas of life can be bridged. This is something which television producers, especially those working in the field of educational broadcasting, should be aware of.

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[2] Monica Rödstam: "Barns utveckling 9 – 12 ar" (Child Development 9 – 12 years).

Target groups

Target groups were primarily children in the 8 – 12 age-group, i.e. the age when children begin to be less egocentric and more altruistic, developing more interest in communication. At this age children begin to develop abstract thought, showing a greater inclination to use technique as a tool in the learning process. It is also the age when children become large consumers of television programmes.

From the outset we had a target group of pre-school children, whom we assumed could be entertained and stimulated by watching slightly older, creative children on the screen.

The teachers in the project

Our original aim – to produce television programmes – influenced our choice of teachers. The teachers chosen to participate in the project taught with the child's perspective in mind, they made use of creative working-methods and were willing to work in a communicative way. Furthermore, these teachers were able to make use of and develop the knowledge and experience that the presence of television would mean to the class. In short, all the teachers had a common, basic approach:

- They assumed that children need to show their feelings and thoughts through the use of creative working-methods and that children are extrovert and enjoy communicating with other children or individuals.
- They had access to an extra resource, e.g. a local artist invited to the school or an art teacher, a media consultant from local television or the local AV Aids Centre. She or he would help the children to develop their own ideas and creative ability. In the beginning the producer acted as such an extra resource.

Developing communicative competence

In the project it is the children's inherent strength which is stimulated. One starts with what children "are good at", letting them use all their senses to formulate messages and different artistic forms of expression such as text, illustrations, movement and sound in order to develop fantasy and the ability to express.

"Handle with Care" is a way to develop communicative competence, at the same time allowing the child to strengthen its identity and use different media. Communicative competence is defined as "a way to develop knowledge and ability enabling one to understand, interpret and cope with the reality in which one lives."

In the classroom several common languages are developed, required to "understand, interpret and cope with the reality in which one lives". The work is done with the help of teachers and others who are in command of various artistic forms of expression, e.g. a writer, an artist or a craftsman. Most important is the ability to listen to the children and utilise and develop their creativity.

The project became topical on the arrival of the following programmes broadcast by UR:

- two about a pre-school in the Reggio Emilia in northern Italy; the programmes gained a lot of attention and was followed up by an exhibition at the Modern Museum in 1986 and a book "Children have a hundred languages – 99 are taken away";
- another programme was about Asta Hakansson, a pioneering Swedish teacher who taught completely in accordance with the teachings of the French pedagogue Célestin Freinet.

The project's educational approach is mainly rooted in thoughts and teachings of Freinet who states:

- that children have a need to express themselves freely with the help of all the forms of expression available;
- that they have a need to communicate with other children or adults;
- that it is necessary to teach children different techniques so that they can master these tools when expressing themselves.

At about the same time, the producer, together with some Freinet teachers and their children, had the opportunity to experiment with a video-camera at a symposium on Freinet's ideas. Working together with the teachers and children gave the producer insight into the possibilities in using this method and the creativity developed within the group in such a short time. The experiment resulted in 12 video films in 10 days.

UR's and television's role

Before the project started an agreement between the participating teachers and the producer was made. The teacher and the pupils in the class were to work in a way previously agreed upon. The television production was the more or less specified goal of the project, but the children were not allowed to be influenced by the television production. They should freely develop their forms of expression, choosing themselves the direction and the pace. No performance demands were made upon the class.

Up until the time of the television production the producer's task was restricted to giving the class support, she was never to influence them in their work. On the other hand, matters concerning the actual television production, the filming and the editing of the television programmes were of course left to her judgement.

Nevertheless, the whole production is permeated with the feeling of mutual understanding, the producer and the class agreeing on all that is filmed. On the one hand, the filming must be done professionally, on the other, the programmes are intended to be educational: the children's material has to be arranged and put in a context which the viewers can understand. In this way, the producer is given the role of a "fosterer" in relation to the viewers.

Research

At the beginning there was no attachment to research. The producer let the project develop step-by-step, according to the experiences gained during work on the programme and project. After a while, with the help of some funding, a proper research programme began, which also progressed according to the experiences gained, following the step-by-step development.

In the multitude of material, performers and angles of approach resulting from the character of the project, the producer took a closer look at the latent structure, which can be used both in the production and as a method in school. Hence this research report is written from the producer's perspective. As the project advanced we realised the importance of the media questions and examined the work of other researchers in the field.[3]

Basic Conclusions

In answer to the original questions posed by the project, we have ascertained that

(a) it is possible to make programmes together with children for a broader audience of children, and
(b) that it is also possible to make programmes "by" children.

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[3] We would especially like to mention here: Karl-Erik Rosengren: "Pa gott och ont. Barn och Ungdom and television och Video." (For better or for worse. Children and Youth, television and Video) and Karin Stigbrand: "Mediakunskap i skolan" (Media studies in school). Previous documentation on the "Handle with Care" project includes: an evaluation from the Netherlands, a report about two programmes by Monique Caron Bouchard (Montréal, Canada); and an evaluation done by Inger Karlman, one of the participating teachers (Handle with Care, Arvidsjaur-Nantes 1987/88); and the two studies done by Birgitta Hultgren (1989) and Lars Hugo (1988) in the UR's research department.

Making programmes by children means that the children have actively participated in the production work. We do not just "use" their products, or them as "actors" in front of the camera; the children contribute with ideas, content, illustration manuscript etc. in just as high a degree as the professional producer.

In Sweden alone we have worked on programmes together with about 20 classes, with roughly 30 teachers and 750 pupils being involved. Over 1,000 schools or classes in Sweden asked to join in the project and communicate with other classes at home or abroad. These figures, compared to other countries, are high. The research of Lars Hugo (1988) showed that of those classes who announced an interest in taking part in "Handle with Care", 85% of the initiative came from children.

Age plays an important part. Originally the production was intended for pre-school children, but it has since been shown that both pre-school children and lst-6th grade pupils are keen viewers. A report by Birgitta Hultgren (1989) on two programmes in the series, "The Secret Box" and "Handle With Care", together with a number of letters from children showed that the former programme was mostly enjoyed by 1st to 3rd grade pupils while the latter was mostly appreciated by 4th to 6th graders. More than 50% of those pupils questioned had watched at least one of the programmes and were aware of the series "Handle With Care".

The programmes have changed character. Over the years the children have been involved in the production of documentaries, dramatisations, environment programmes etc. In all the programmes the children have played the leading roles, and as a result of their interest and curiosity the series "Klubben" (The Club), a forum for the exchange of experiences, has been formed.

Some of the programmes in the series have received special attention. After the first programme by and with immigrant pupils, UR was invited to attend an international exhibition in Paris in 1984. This gave the producer the opportunity to establish international contacts. There was international recognition: a prize in Italy "for understanding among children", and in Basel "for dramatisation and a unique way in working with children". In Sweden, there were also respectable viewing ratings (above all for the programmes of the series "The Club"), and figures from audio-visual aids centres showed the largest amounts of borrowing (under the category Environment Programmes). Last but not least, the responses from children/viewers have indicated to us the extent to which different programmes have been appreciated among television-producers, adult viewers, children and teachers.

There is also a dilemma here for the Swedish producer: those programmes which children enjoyed most are, according to adults, less praiseworthy and vice versa. The problem raises the question of the goals and the target group UR should consider when it produces children's programmes.

The need for routine and regular broadcasting the producer has is shared by the children: television too often gives information or entertainment in fragments, while children need to have regularity in their surroundings.

The programmes may not have been among the most popular children's programmes, but they have undoubtedly stimulated activity among children, which was the original aim of the programme series.

Teacher in-service training

We are aware that some teachers are less interested in "Handle with Care" than others. Sometimes they were unwilling to start the project, mainly because the children were so enthusiastic. Their doubt often stems from a lack of confidence in their ability to handle new techniques and the new teaching situation.

Teachers who need further training in media can be assisted by extension studies or teachers' seminars. Nearly all express an interest in further training and regular in-service training. Here UR has been able to fulfil some of teachers' wishes through the use of distance courses.

Media consultants

So far members of UR's regional staff or the producer have played the part of media consultants, but in recent years the number of these media consultants has increased, e.g. in audio-visual aids centres, in media workshops or as participants in different projects financed by the state or regional government. During the project we could clearly see the need for professional help if the technical equipment was to be used in the right way. We have seen not only the need for media consultants in schools and in the classrooms, but also how their knowledge can be spread to larger groups through the exchange of packages and through the programmes.

Pedagogic cases

It is unrealistic to think that all schools can get the media equipment needed for media teaching. Through our pedagogic cases we have developed "prototypes" which all audio-visual aids centres can use. With relatively simple means the prototypes can be copied, even improved upon, then hired to schools for use with children in similar projects.

SR/UR's profile

UR is regarded as an electronic teaching aid which by means of radio and television conveys knowledge to listeners and viewers. UR has access to audio-visual aids centres to assist in the distribution of programmes reutilised in teaching. UR also has access to video-text and print enabling the spread of programme information. The information is transmitted via radio and television to the receiver using the programmes in teaching. Children's programmes and school programmes are conveyed to teachers, who in turn transmit the information to the children by traditional teaching methods.

The profile of UR today forms patterns among both viewers and producers. Without questioning this profile, one can at the same time wonder if it should not evolve in pace with technical and pedagogic development. On account of the different types of viewer and the different ways of learning, there are different needs. As Birgitta Qvarsell puts it:

> "It is important not to restrict oneself to one integrated system where one assumes that learning is fixed or organised in, for example, steps or levels which become upset or exceeded by everyone in the same way. Man's learning-processes can vary enormously and the only common experience one can attribute to them is that they are personal."

With those resources UR already has available it is quite feasible to occasionally create room for two-way communication with only small intrusions into the existing organisation and structure. It is just a question of using those "links" (video-text, audio-visual centres, local television, local media workshops and schools) which already exist between television and target groups. The "pedagogic dialogue" carries UR closer to its target group and allows for a more enthusiastic audience. As UR itself is considered as an electronic teaching-aid it should be important to develop those teaching-tools which are based on principles of communication and media language. It is also very economical to make use of local resources as a part of programme production (two-way communication).

Limitations

We would here like to point out the factors we have consciously chosen or unconsciously discovered which limit or direct the project and its development.

The new working-method was not established at UR. There was no resistance to testing new methods, but because it was not a research project at the initial stage the funding for developmental research work had to be taken from the normal budget. (One knows that there are ever-present demands on producers to produce programmes which appeal to the public and maintain high standards, and yet keep within a limited budget.) It was only after a certain time that we were granted funds for research and evaluation of the programme series.

The limited resources of time and money helped us to find other, newer methods which rationalised our work. They were unplanned. We discovered them, while the work progressed, by accident in the empirical manner of Freinet's "tatonnement expérimental" or, in other words, by trial and error.

Applying research to the programmes also had its limitations. Among other things it was difficult to find similar research projects to compare with. Most research reports in the field have been written from a "viewer's perspective", applicable to both adults and children, whereas our research had to be done from a programme producer's perspective. We benefited more from research findings covering learning methods within developmental psychology, e.g. the works of Brunner, Piaget, Qvarsell, Rödström and the experiences of Freinet.

The fact that the project did not start on a regular research basis also meant that there was no recorded material or continual description of the project from the beginning for research purposes. Nor was there any attempt to structure the project from the beginning. Instead, there was a multitude of material, impressions, experiences and a latent structure of a working-method which in the course of time has grown stronger. It was mostly while the producer was editing the material for the video part of the report that this discovery was made.

This type of editing, intended as an analysis and not just a programme, was new and unestablished compared to normal editing procedures. The two roles of producer and empirical researcher are, from the point of view of objectivity, sometimes incompatible. The work in itself and the presence of an editor however allowed one to view one's own material with some detachment. The editing made it possible to make certain observations of the process which then revealed a certain structure necessary for further work on the project and its development.

It was hardly possible to continue working with ordinary programme activity going on, and this was in some ways frustrating for the producer. Since the project successively resulted in new material for new programmes, the producer was continually left with the decision of possibly interrupting programme production and ongoing development of the project in order to write this report. Until now we have given programme production priority.

The written part of the report has been most difficult to finish, the reason being that it has two purposes. One is to explain any unclear points in the video part of the report, and the other is to describe the experience gained while editing. In the final editing of this report (written and video) the author and the producer received the assistance of Britt Isacsson from UR and Birgitta Hultgren, who previously took part in writing an evaluation of two television programmes in the project "Handle with Care". Both have acted as critical discussion partners and co-authors.

An important experience is that the video part of the report, representing ten years' work together with the written part, can hopefully explain the benefit of research at a time when funds are decreasing and demands for viewing statistics increasing. Hopefully, the report can also make clear how important it is that this research should have its starting point in producer and programme activity rather than in a receiver-viewer perspective.

Research

In the actual production work, where sometimes extensive material has to be concentrated into a 20-minute programme, more or less subconscious research-like work goes on. As the producer one is always confronted with problems which need creative solutions within certain frameworks (time, technical equipment, funds) and which should result in programmes which satisfy the public's (i.e. the teachers' and pupils') demand for high standards.

Working with creativity and communication in school has meant that the pedagogic dimension in the role of producer has been made clearer, and the producer's relationship with school and audience has increased and become more tangible. The work has also raised a large number of questions concerning media development and training and even the purpose of school television.

In the same way as there is a difference in how children and adults today regard television or video-recordings there is also a difference between "word-oriented" and "picture-oriented" people and the way they view and express themselves. It is natural that "picture-people", who prefer to express themselves through illustration, are also given better opportunities to research and use illustration as a natural way of expressing themselves.

What appears to be important today is that the producer (even when together with teachers and children) should be a subject in the research. This would also allow the researcher a look into production work and the conditions there. Only then will we be able to introduce continuity and communication between the researcher and the producer.

Karl-Erik Rosengren talks about "how-research" in this context (as opposed to cause and effect research) which according to him ". . . is more action-directed . . ., a form which is more resolute and which is used to find out how one can change things – a form of action research if you like . . .; (it) is a step away from the closed world of research amid the surrounding society. Research comes closer to action. However the road between research and action can be a long and tedious one."[5] In Sweden, UR's activities show that efforts are being made in this direction.

Before such research gets seriously under way one should be able to make use of the experience gained in the development of ideas surrounding the pedagogic cases, the portable control room, which is an instrument for the production and evaluation and, not least significant, a way of using children as co-researchers. The producer personally would like to continue working with programme development and research with the help of media's own instruments.

Regardless of the support that teachers and pupils may get in media-directed school activity, communication is being developed. Communications technique will without doubt continue to advance and probably even faster. Perhaps that is why it is now time to make sure that communication is given pedagogic substance.

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[5] K.E. Rosengren, op. cit., p. 15

Michèle Cohen

The Geography Project "Panoramique" – An Example of Transatlantic Cooperation

All producers recognise that organising an international coproduction is a long venture full of pitfalls, requiring from those who have to coordinate it perseverance, the ability to communicate, a taste for negotiation and persuasion – in short, it is a real Sisyphean task. Yet all these producers agree that these coproductions are becoming more and more necessary – given the difficult and fragile economic situation of the audio-visual media – and even agree that they are not completely impossible to realise.

Here I would like to present the strong points and the original features of a coproduction involving 16 films, each 13 minutes long, which were launched and coordinated by the Centre National de Documentation Pédagogique (CNDP) for Europe and the Agency for Instructional Technology (AIT) for North America. This is the series known in Europe under the title "Panoramic" and in America "Common issues in world regions". It took as its general objective a comparison of how men in America and Europe are facing up to the changes taking place at the end of the 20th century.

The origins of the coproduction

The starting point of the venture was the desire of the CNDP and AIT – both producers of educational audio-visual programmes – to cooperate. A project for a coproduction in geography gradually saw the light of day, since this is a subject that is taught everywhere and which has more need of images than other subjects. This series, its outlines still vague, was intended to allow children on both sides of the Atlantic to discover what life, problems and solutions on the other side were like. But at the beginning the project was the concern of two determined partners, who took charge of the conception and the development of the project, as far as contents and aims were concerned. They were helped by European and American geography experts.

The execution of the project involved the preparation of initial specifications for the series, which were then suggested by the CNDP and AIT to their potential partners. The series was to be composed of 16 films, each lasting 13 minutes, for children in the age group 13 to 15, and tackling eight major issues in the field of economic and social geography which allow the changes taking place in the modern world to be understood most easily.

The eight subjects or major themes chosen were:

Urban Renewal
The Tourist Invasion
The Adaptation of Agriculture
Ecological Risks
The Integration of Immigrants
The Growth of Transport
The Expansion of the Suburbs
Industrial Redeployment

Each issue was then the subject of a case study in Western Europe and North America, based on the real experience of a young person in his family and social environment. On this basis AIT and CNDP each undertook to realise one pilot programme each – on the subject of the integration of immigrants – and to find respectively the 7 or 8 necessary partners in Europe and America.

The partnership

A double partnership developed: one between CNDP and AIT, those responsible for the project and for monitoring progress; the other between CNDP and its European partners or between AIT and its American and Canadian partners. This led also to two levels of contractual relationship: one contract signed between CNDP and AIT lays down each party's obligations, another one had to be signed by CNDP with its eight European partners, and the same applied to AIT.

The mode of partnership employed was that each country or state represented by a partner was to produce a film and enjoy the rights of exploitation of the series in its own territory. The AIT and CNDP reserved for themselves the rights of exploitation in the rest of the world, possible profits being put onto an account intended to finance a new coproduction project.

Apart from the CNDP and AIT, the partners involved in the project were in Europe:

> RAI (Italy), NRK (Norway), NOT (The Netherlands), BRT (Belgium), PMAV (Catalonia), FWU (Germany), RTSR (Switzerland), BBC (United Kingdom);

in Northern America:

> TVO (Canada), KLCS (California), ETV (Kentucky), Public Radio and TV Network Wisconsin, and the Departments of Education of South Carolina and Maryland.

Finding the partners proved to be relatively easy – perhaps because the project was well-prepared, but also because the idea of "transatlantic" collaboration was very attractive. This does not mean that collaboration was simple, since each partner had his own requirements and defended them every inch of the way.

Working method

Together with the project specifications, AIT and CNDP suggested to their partners what working method should be used. Bearing in mind the well-known failure of certain international coproductions (in which we did not participate) and to avoid any uncertainty, it was proposed that the project should be properly coordinated. The specifications were discussed heatedly but then had to be respected by all concerned. This list of specifications, which laid down the subjects, aims, treatment and structure of the films, as well as the technical methods, was annexed to the contracts.

The period from the first conception of the idea of the coproduction at the end of 1988 to the submission of documents at the end of 1990 amounted to two years. A timetable was drawn up, allowing for a certain number of meetings and deadlines and laying down when the texts had to be submitted, corresponding to the different stages of progress reached by the project. The texts were centralised by the CNDP and AIT, who distributed them to the partners.

Apart from several separate meetings between Europeans on the one side and Americans on the other, two meetings marked the major stages of the project:

- A first one that took place in the USA , where the projects were examined by the "pairs", i.e. a European and an American producer dealing with the same subject each, and, after discussion, corrections and adjustments were made;
- A second meeting that was held in Paris, where all partners viewed and critically discussed the two pilot programmes on the theme of immigration, produced by CNDP for Europe, and by KLCS (Los Angeles Educational Television) for North America, and where also the scenarios were studied by the experts, again in "pairs".

These meetings gave rise to sometimes drastic clarifications and to disagreements with the experts: each party realised that

- conceptions and approaches were often further removed from their own ideas than they had thought, and that,
- apart from linguistic difficulties, words represented different aspects of reality to different people.

However, after the second joint meeting in Paris, the green light was given for the production of the 14 films remaining to be produced.

The result

Today the series exists, the 16 films have been produced with their accompanying print material, and have already been broadcast by certain partners. As far as evaluation work is concerned, I refer to John Nelson's contribution in this volume. It is not for me to criticise the series; I will leave this to others – in particular to the users. But I would like to emphasise the cultural diversity that can be seen in these films through the differences of approach and viewpoints adopted by the coproducers, which makes this series a wonderful tool in providing knowledge of the ways of life on both sides of the Atlantic. In addition to geography, teachers will be able to use it as material for a particularly well-documented course in civilisation.

Conclusions

As far as the procedure to be followed is concerned, this coproduction has proved the necessity for a certain number of rules:

- a good project to start with,
- proper coordination,
- a precise and detailed list of specifications,
- the importance of the pilot programme, and
- implicit loyalty from all partners.

However, a weak point in this type of collaboration, in which each partner produces his own film, occurs during the production phase, when coordination control is no longer exerted. Control procedures for this situation have not yet been found – they could perhaps be in the form of a delegated producer who would be present at the scene of production, the costs being taken over by the coproducers as a whole. It may also be necessary to lay down that all the partners share the costs of coordination, which are heavy.

In spite of certain inevitable, necessary criticisms expressed at the project appraisal meetings, the partners in "Panoramique" felt this experiment to be very positive and rewarding, with links and closer relations being created. New projects are already envisaged to continue collaboration. The "Panoramic Club" has been born – long may it live!

John E. Nelson

Cooperation with European Broadcasters – A View from the USA

Introduction

The Agency for Instructional Technology (AIT) designs curricula and produces learning materials for schools in the United States and Canada. Established as an instructional television research project in 1962, AIT is charged with strengthening education through technology. AIT produces and distributes video, computer, and printer based instructional materials in cooperation with state, provincial, and international agencies. AIT is a non-profit organization located in Bloomington, Indiana, U.S.A.

In the United States and Canada the state and provincial governments, not the Federal governments, control education. These 60 states and provinces share common cultures and curricula and cooperate frequently in a wide range of activities; many of these states and provinces control or work closely with educational broadcasters. They created AIT to manage their cooperative development of new curricular materials for school use.

During its 30-year evolution AIT has also been known as the Agency for Instructional Television, National Instructional Television, and the National Center for School and College Television. The changes in names reflect changes in purpose initiated by changes in technology and educational needs. For example, "Television" was changed to "Technology" to reflect the increased use of video and computer components in what were formerly strictly television projects.

There is a close relationship between educational broadcasters and governmental organizations in the U.S. In some states the educational TV stations are operated by a state authority and speak as both the state and the broadcaster. In other states the stations are operated by universities or foundations and work closely with the state departments of education to coordinate curricular activities for the schools. In a few states the stations work closely with local school districts instead of the state. With 60 states and provinces and over 300 broadcasters, the permutations seem endless.

AIT specializes in cooperative development with the states and stations and only occasionally participates in coproductions. Thus, the reader should understand the

AIT cooperative development process to see AIT's involvement in "Common Issues in World Regions" (Panoramique) in perspective.

AIT funds the design and production of learning materials by forming a consortium of interested education agencies. To date, 29 different consortia have created learning materials used throughout English-speaking North America and, increasingly, around the world.

A consortium unites as many as 60 education agencies in the design and evaluation of pedagogic materials; AIT manages the project and produces the materials. Subsequently, stations and states have the right to broadcast and duplicate them, and schools within the member agencies have rights to use the materials in their classrooms.

These materials have been successful because the cooperating agencies have committed their time and energy, as well as their intellectual and financial resources, to ensure the materials are designed and produced to meet their own needs. The states and provinces are responsible for teacher training and accessibility of materials.

Members of the "Math Works" consortium

The states and provinces make significant financial contributions: the 29 major sets of materials cost $ 33,565,656 to produce (including indirect costs). The majority of the funds came from fees based on student populations, other funds came from grants and AIT. The following chart illustrates the investment made by the entire system and two states:

State/ Province	Level of Participation	Participant's Share (US $)	Total Cost of Development (US $)
Entire System	29	25,360,481	33,565,656
Alabama	11	355,555	19,253,882
Alaska	23	311,966	28,894,156

Alabama paid more for 11 series than Alaska paid for 23 series because Alabama has a substantially larger population. Note that Alaska received 23 sets of materials for an investment of $311,966; those materials are valued at $28,894,156. Obviously, cooperative development can be very cost-effective; simply purchasing materials outside of the consortium is always more expensive. More importantly, each member of the consortium helps design and evaluate the materials.

Instructional design and formative evaluation

AIT "strengthens education through technology" by emphasizing the word "instructional" more than "technology" and by relying heavily on the art of teaching and the science of research. For example, AIT's instructional videos are based on several general considerations about learning:

- Learning will increase if the learned understands explicitly what is expected.
- Students learn most effectively when they start with familiar situations before moving to new situations and problems.
- The greatest amount of learning occurs when skills are developed and practiced in situations similar to those in which they will be applied.
- Effective instruction emphasizes active rather than passive learning.

An illustration of students learning most effectively when they start with a familiar situation is contained in AIT's "Measurement: Finding Areas of Rectangles" from the "Math Works" series. The program creates a scene easily understood by American pupils: two "target-age" children earn money by mowing lawns for their neighbors. Because their fee varies with the size of the lawn, they must know how to calculate the area of a rectangle. The program follows them as they discover the formula "A = L x W" in the context of an everyday, not classroom, situation. The program emotionally involves viewers as they witness their peers using the discovery process to learn and practice in a familiar situation.

What do pupils learn from the program? The formula to determine the area of a rectangle? The skill to apply that information? The strategy to manage their own learning process? The desire to learn more about mathematics? As these questions suggest, learning involves more than just memorizing information, as Gagné pointed out in his five categories of learning:

information – reporting facts or generalizations
intellectual skills – applying learned information
cognitive strategies – self-managing learning
attitudes – choosing personal action
motor skills – executing bodily movement (1974)

The program "Measurement: Finding Areas of Rectangles" does not simply state the information "A = L x W" and tell the viewers to memorize it. By observation and subsequent classroom practice, students learn to use intellectual skills, such as problem-solving, to apply known rules to new situations. They learn to use cognitive strategies, such as critical thinking, to manage their own learning processes. They develop positive attitudes towards mathematics by watching peers successfully cope with a difficult problem.

Successful instructional videos must have high technical, creative, and instructional quality. They should be integrated with other media so that they complement other classroom activities. The content of the series of lessons should be new enough to facilitate improvement in classroom practice, but not so new as to require disruption of existing curricula. Finally, they should have a carefully considered sequence of instruction, with each lesson building on preceding lessons.

For example, AIT's instructional designers cite the following principles of learning as important to the sequence of instruction:

Active participation – encouraging students to think along with the presentation.
Sequencing – from the simple to the complex, the familiar to the unfamiliar.
Chunking – presenting the right amount for the development level of the students.
Congruency – eliminating whatever is not tightly relevant.

Here is a simplistic example of materials designed to facilitate learning: imagine that the numerals 1 – 9 are being replaced with new symbols. Which of these charts would you rather use to learn the new symbols?

The instructional design of AIT materials is verified and refined through formative evaluation; subsequent production of provisional learning materials is based on that design. The preliminary drafts of scripts, videos, and teacher's guides are thoroughly tested in classrooms and revised as the research suggests. Formative evaluation focuses on four criteria: student **attention** to the lesson, student **comprehension** of the content, the nature of classroom **interaction** stimulated by the lesson, and the **appeal** of the lesson to students and teachers.

Final responsibility for and control of instructional video rests with the teacher. Instructional video programs are designed to facilitate teacher adoption: a typical teacher's guide contains a summary of each program; a statement of objectives or goals; suggestions for preparatory activities; follow-up activities; a glossary of vocabulary; lists of useful equipment; readings; and a textbook or curriculum correlation matrix.

Cooperation outside of North America

AIT has a long history of cooperating with broadcasters and other producers outside of North America. A few examples are:

- AIT presently distributes world-wide the "**Vincent van Gogh**" and "**If You Paint, You See More**" series for NOT of the Netherlands and "**Sports Science**" for the Queensland Department of Education.
- AIT worked with 14 organization around the world in producing "**Global Geography**".

- AIT supplies programs for the broadcast and video markets world-wide.
- AIT is searching for new partnerships.[1]

"Common Issues in World Regions" (Panoramique)

"Common Issues in World Regions" contains paired case studies from North America and Europe showing how youth on both sides of the Atlantic deal with common issues in a rapidly changing world. The series is designed to foster geographic literacy, comparative thinking, and international understanding. The eight North American producers were organized by AIT and the eight European producers were organized by the CNDP.

The goals for the programs were outlined by the content and design experts and were mutually agreed upon by the participants. Then each producer was responsible for production. They communicated with each other through numerous fax and telephone exchanges. In addition, two international meetings were held early in the process so that all participants could discuss ideas and learn from the design and content advisers.

The programs will be broadcast in the United States starting in September 1991, therefore it is too early to comment on audience reactions. The remainder of this article will deal with producer comments.

1. AIT is satisfied with the outcome of the project and is interested in joining other coproductions. As always, we will focus on pedagogic matters in selecting the next project. Since it is difficult for producers in several countries to agree on both a curriculum and production style, we assume it will take time to identify the next project.
2. Although we were pleased, in general, with the outcome of this project, there were several problems: missed deadlines, programs shot from the perspective of adults (instead of youths), no provision of publicity stills, cue sheets, and maps. The problems caused by a missed deadline are obvious, but even a "small" problem, such as missing publicity stills, can radically affect a promotion campaign.

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[1] If you wish to receive free copies of the AIT newsletter, write to:
John E. Nelson, Manager of International Activities
Agency for Instructional Technology
Box A, 1111 West 17th Street
Bloomington, Indiana 47 402 USA.
Telephone: (1-812) 339-2203; Telefax: (1-812) 333-4218

3. Although we attempted to discuss every conceivable need, the complexity of the project caused even experienced professionals to assume too much. More detailed communications were needed.

4. One of the major goals of the series was to expose students to cultural differences. Therefore, it is ironic that cultural differences caused friction between the producers.

   - Concerning pacing, Europeans thought North American programs were too fast and Americans thought European programs were too slow.
   - Concerning mood, Europeans thought North American programs were too optimistic and North Americans thought European programs were too pessimistic.
   - Concerning music, both sides thought the other selected poorly.
   - The program most liked by Europeans was considered melancholy by North Americans.
   - The affluent lifestyle of North American teenagers appalled Europeans.
   - The program least liked by both North Americans and Europeans was North American.

5. Recommendations for future coproductions:

- A strong executive producer would be desirable, but this automatically raises the question whether all parties could agree on one particular leader.
- Fewer parties should be involved, as this would, presumably, lead to fewer divergent opinions.
- Detailed contracts would oblige producers to deliver as promised.

Andrea Zapp

Coproductions with German Television Stations: The Basic Structure of Joint Projects

The Institute's profile

Situated in Gruenwald near Munich, the FWU Institut für Film und Bild in Wissenschaft und Unterricht[1] is a non-profitmaking limited organization of the Länder of the Federal Republic of Germany. The Institute produces and distributes educational media for schools, youth and adult education and culture. Over 5,000 productions have been made and, every year, about 200 new productions are added.

The range of programmes covers history, political science, geography, biology, chemistry, literature, music, art and sport. Issues such as environmental protection and the supply of energy are also covered. Furthermore, educational computer programmes are being developed which foster explorative learning. A large number of these media products are also used in basic and advanced professional training.

Within its sphere of responsibilities, the FWU is engaged, both nationally and internationally, in consulting educational projects on media-oriented matters. In co-operation with the European Community, for example, projects are currently being developed to inform the new Länder on political, economic and cultural matters. Over the next years, the FWU would like to extend its activities and integrate innovative concepts on educational media into a structure suited to a Pan-European educational system.

Another important function of the FWU is to inform and offer advice and consulting on all kinds of educational and technical questions concerning the use of media. For example, the FWU makes suggestions as to what audio-visual hardware is particularly suited to cultural and educational areas, as well as suggesting which type of media should be used and how it should be best applied.

Within this range of activities, co-productions with the German public service broadcasters have become a regular element of FWU work.

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[1] Literally translated roughly: FWU Institute for Audiovisual Media in Science and Education.

Co-operation between the FWU and German broadcasters

The FWU is in constant touch with both ARD-affiliated stations and ZDF, the Second German Television. As a result, programmes can be planned on a co-operative basis. Joint educational and media-pedagogic work leads to discussions on expert level, enabling an effective exchange of information on major topics.

However, the fact that interests are mutually shared means that a greater efficiency in the planning and realisation of productions is achieved.

Co-operation prevents overlapping. This means that the work of everyone employed in the media sector can be fully exploited in a concentrated, effective and economical manner.

Forms of co-operation

There are two major scenarios when the FWU and German broadcasters work together on productions: either they join forces and make new productions or they sit down together and assess existing film material.

1. New productions

The FWU works closely with a great variety of TV editorial offices, such as those for contemporary history, culture or current affairs. Film concepts are developed on the basis of mutual consultation in the relevant committees. Themes are selected after there has been a steady, two-way flow of information.

After being contracted out, film scripts are then presented to the committees of both organisations. They examine both the contents and objectives and may ask for certain changes to be made. These committees are responsible for the various production stages, during which an FWU specialist and the TV editor in charge are present. Once the draft film has been made and the corrections completed, the finished film is finally approved.

An example of a co-production of this kind was the video series "Milestones in Natural Science", produced in 1991. This series is concerned with the origins of natural science and technical achievements – from the creation of the railway to the origins of photography and the first traversing wheel. The individual episodes portray something exceptional achieved in a particular era. Identical versions were made for the FWU and for television.

Partners for this joint production in 1991 were: the FWU Institut für Film und Bild, the Bayerischer Rundfunk, the Norddeutscher Rundfunk, and the organisations TransTel and Telepool.

However, producing films in this manner also gives rise to certain problems. This is because the two organisations involved entertain different didactic objectives, and this infiltrates into production planning. The FWU directs its productions towards the needs of the relevant target groups in school and out-of-school education, and this is not always clearly compatible with the aims of the broadcasters.

The film's contents and its message must therefore be checked, so that they fulfil their purpose. Differences should also be allowed for with regard to the film's length. For didactic reasons, an FWU production usually lasts for about 15 minutes. A television version, however, is required to fit in with the normal broadcasting pattern. Consequently, it is often longer.

Normally, two versions of the same film are contracted out, so that any conflicting requirements can be taken into account. The versions are examined separately by the working parties responsible in each organisation. This form of co-production is based on various financial models, whereby each partner pays his share, depending on the project in question.

Different versions were made for the FWU and for television, for example, of the 16mm film "Mit den Störchen nach Afrika" (Following the storks to Africa): It shows how, at the beginning of August, the white storks leave their breeding grounds in Europe. They fly round the Mediterranean, over Istanbul and the Near East in their thousands, and reach their feeding grounds in Africa after a journey of over 10,000 kilometres. They confidently look for food among elephants, buffalos and antelopes.

Co-production partners were the FWU Institute, Bayerischer Rundfunk, and TransTel; the year of production was 1991.

2. Exploitation of existing film material

An additional form of co-operation is the integration of existing film material, which has already been produced by the broadcasters' editors, into the FWU's programme. This approach depends on the themes decided on when the FWU makes its internal plans for production, which, in turn, are determined by the needs of the target group in the educational sector.

If existing material is to be used, it is necessary to adapt the film extensively. The advice of specialists is required when making cuts. This, of course, gives rise to new dramatic requirements as regards the montage work. The commentary needs to be altered.

Depending on the target group, the new film should be didactically prepared in a suitable manner or, perhaps, structured differently. This is because, in the last resort, a successful use of film in a media-oriented, educational environment depends on how good the concept behind it is.

When existing films are adapted in this way, negotiations are carried out with the programme sales departments of ARD stations or the ZDF. The basic legal and financial conditions are contained in skeleton agreements.

In 1991, the Institute produced a didactic-oriented video series under the title "Vom Reiz der Sinne" (On the stimulation of the senses). The series explains the nature of each sense organ and their various stimulatory effects, and how such effects reach the brain, where the various stimuli are combined to form a complex picture. It is an adaptation of television material from a ZDF programme titled "Was Sinn macht" (What Makes Sense).

Another example is the series "Die DDR im Umbruch" (The GDR in transition), a revised version of a programme produced by Spiegel-TV. What took place in autumn 1989 is recapitulated. During the two months from mid-October to mid-December 1989, a complete transition in the political and social system of the GDR took place at breakneck speed. A development that no-one had believed possible. The series focuses on three areas – the 40th anniversary on 7th October, the opening of the border on 9th November and the end of the SED era from mid-November to mid-December.

Summary

When working together, the parties not only need time for concrete, thematic-oriented matters but, more and more, for discussions about social developments. Agreement in this respect is sometimes the main prerequisite for co-operation, as is seen for example in the current debate about the European Market of the future.

The FWU considers the move towards a united Europe as a major, additional perspective. The various educational systems should come closer together and a common base for their work should be created. The beginnings of such a development can already be seen in the area of co-production. The FWU not only produces with German media institutions and broadcasting organisations, but is also becoming increasingly active on an international level. An example of this is the project "Panoramique" which Michèle Cohen describes in this volume.[2]

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[2] See pp. 256 – 259

Lambros Atteshlis, Robin Mudge

School Science on Television

Christopher Atteshlis aged nine came home from school the other day reciting the following poem (by Ray Mather):

> "SCHOOLSPEAK,
> 's cool, man,
> It's the lingo they wanna ban.
>
> P.E.'s brill,
> Maths is vile,
> Maths, man, it ain't my style.
>
> Art's a doddle,
> R.E.'s a doss,
> Gotta show them who's the boss:
>
> SCHOOLSPEAK,
> 's cool, man,
> It's the lingo they wanna ban.
>
> Science is grotty,
> Drama's dead good, . . ."

In case you did not 'get it', the message is that science and maths are not the kind of subjects a street-kid is meant to go for. Unfortunately I suspect that lots of adults in the United Kingdom also feel the same way.

Imagine a supposedly well-educated individual admitting that they have never read any Shakespeare. That is definitely not okay but when it comes to Einstein or Newton things seem to be more acceptable! No doubt you will have your own theories on this but it seems to us that science is not part of our culture in the same way as the arts are.

So with this as background how can television help in science education? If you ask teachers this question they often come out with phrases such as "Television should show science in the real world''. I could not agree more but there are some difficulties to overcome first.

For instance industrial chemistry is often quoted as the kind of subject we should cover on television, however we have to be careful what we choose to tackle. Imagine the production of ammonia by the Haber Process on your screen. Here we have two colourless gases, nitrogen and hydrogen, producing another colourless gas/liquid ammonia, all done in stainless steel containers. This does not exactly make good television!

If you ask us about the role of school television then we would say that motivating students to want to know more about science should always be top of the agenda. We must find ways of making science an enjoyable and stimulating experience. If we cannot do that with the Haber Process then maybe we should not do it on broadcast television.

We have attempted two different approaches on the series we have worked on over the last few years: 'Hands-on' and 'Brains-on'.

''Search Out Science'' (9 – 11 year-olds) and ''Science in Action'' (14 – 16 year-olds) were both very much hands-on. We tried to look for curious ideas to build the science on. ''Short-circuit'' (14 – 16 year-olds) goes for the 'brains-on' approach. We have taken controversial issues in science and allowed the relevant school science to develop out of the issues.

'Hands-on', 'Brains-on'

For a long time we have been intrigued by the success of 'Hands-On' Science centres. Wherever you go, from the Exploratory in San Francisco to Techniquest in Cardiff, large numbers of people are actively involved in genuine science exploration – and enjoying it! If we could work out what the magic ingredient is and apply it to television then we would have a winner. Finding it has been difficult, applying it even harder.

Fundamentally, 'Hands-On' Science centres work on a notion they refer to as the Anti-Intuitive, or Anti-Commonsense. If you show people a phenomenon that goes against their common sense, surprising them and raising their level of curiosity, and then give them the ability to investigate it for themselves, they do so with great enthusiasm.

To understand what we mean, try this thought experiment. Imagine two inflated beach balls suspended so that they both hang at the same level and about twenty centimetres from each other. You have a hair dryer in your hand. When you point the dryer at either of the balls what do you expect to happen? Most people would suggest that the ball will be blown away from the hair dryer by the blast of air.

Now point the hair dryer at the narrow gap between the two balls, what do you expect to happen now? Quite a lot of people expect both of the balls to move away from the dryer and are surprised by what actually happens. The two balls move inward, toward each other until they virtually touch (Bernoulli effect). The surprise result very often raises enough curiosity in the participant to want to find out more.

We decided to use this notion of the Anti-Intuitive in our science output to help us move away from the more traditional fact-laden documentaries to ones actively encouraging intellectual and practical engagement with science and technology. Of the many problems we encountered, three are paramount. Firstly, television is by its very nature a passive medium, and secondly, finding dozens of Anti-Intuitive ideas like the beach balls is very difficult – even for the 'Hands-On' Science centres! Thirdly this approach was difficult for traditional educators to accept.

All of the series we have produced display a particular kind of open-ended structure, which tries to overcome the linear nature of television. Many programmes like to tell the complete story, pose all the questions and give all the answers. Ours pose a number of questions, or set a number of challenges that are not answered in the programme, and are specifically designed to be tackled after the programme has finished.

This type of open-ended approach needs careful thought and construction. It is not enough just to throw in a series of openended questions during a normal programme. The entire programme has to be constructed around these questions and activities, and the viewer has to be helped toward a successful solution without being told the answer. There is nothing more frustrating than being given an interesting thing to do and then having no idea how to do it.

During the first series of this type, "Science in Action 1", we made all of the activities practically based. The equipment was kept simple and much of it could be gathered from around the home. Even so it did require some effort to get the equipment organised.

In the second series we extended the activities to include mental exercises. Imagine an electric fire element mounted in front of a white card so that when it is turned on the light generated by the element falls on the card. Now set up a slide projector so that it casts a shadow of the element onto the same white screen. What is going to happen to the shadow of the element when the element is switched on? We actually did this experiment but asked the viewers to predict the result before we performed it. Needless to say this kind of approach works best when the programmes are recorded.

Our current series "Short-Circuit" takes these notions a little further. We are using real issues in science to stimulate a desire to find out more. Each of our programmes starts with a hook story, a lead-in based on what we call 'Bus Stop Knowledge'. You could find a random group of people standing in a bus stop and they would be able to have a conversation about various subjects (e.g. nuclear power) based on their own opinions and prejudices. "Short-Circuit" starts with a hook story that could work like this and follows on with short films giving evidence, counter-arguments and facts that can be used to develop and explore the ideas in the hook story.

We have also developed a programme style that makes it possible for us to produce a pan-European series in any language. So look out for it in 1992!

Chris Jelley

"Scientific Eye" – A New Way of Science Education

The story of "Scientific Eye", a series of television programmes for 11- to 14-year-olds studying science at school, is one of how we at Yorkshire Television (YTV) set about to provide teachers with a resource that would help to improve the teaching of science in Britain.

Initially that resource was to be a series of ten television programmes, but it grew to become a major multi-media package consisting of:

- three series of 20-minute television programmes for pupils;
- a series for teachers on how to use television in the teaching of science;
- a second series for teachers that was commissioned by the National Curriculum Council, an off-shoot of the British Government's Education Department, to help with the introduction of a new national science curriculum.

In addition to these television programmes, we produced

- notes for teachers presenting programme content, explaining the thinking behind the programmes, and making suggestions as to how teachers might use them with their pupils;
- worksheets for pupils designed for the teacher to photocopy and give to the pupils: the worksheets provide stimulating projects and experiments for the pupils to carry out after watching the programmes;
- a book for pupils to read in their leisure time.

Finally, we have produced a range of computer simulations linked to the programmes that pupils can play either individually or in small groups. They provide situations that allow the pupils to develop their skills as scientists and develop their understanding of scientific methods.

Origins

All of this started with a conversation during a cold February lunch between Adam Hart-Davis, a YTV producer, and myself about how badly science was taught in schools. I had given up science at an early age and regretted it ever since. He had been commissioned to write a science textbook for 11- to 13-year-olds and wanted to bring some fun and enjoyment into the study of science and shift the emphasis away from the acquisition of fact to an understanding of how scientists work. By the end of our lunch we had decided to investigate the possibility of making a series of television programmes.

Many people in the educational world were only too aware that science was not a popular subject in schools and that the way it was taught needed to be changed. As a result, a new examination for 16-year-olds was being introduced. It was hoped that this would transform science teaching by examining pupils not on how much science they knew, but on the extent to which they understood how scientists work – the scientific method.

Aim of the series

The principal aim of "Scientific Eye" thus became to help develop the child's understanding of scientific method and at the same time help him understand a variety of scientific concepts. For the series we used simple language that could be readily understood by pupils. The scientific method – what scientists did – could be summarized in four words:

Look – Think – Guess – Try

If we could persuade children to use this approach we would then have begun to get them to think like scientists.

Research

With our broad aims decided, we had to start research for the programmes. First, we had to find out what schools were teaching and what they would be expected to teach for the new examinations. In due course, we received a mass of contradictory opinions and advice, from which several recurring points emerged:

- Don't overburden the series with facts: TV programmes go very fast and there is a limit to what you can remember.
- Don't let the presenter take on the role of a super-teacher: teachers don't want a substitute.
- Don't suggest that science needs high-tech equipment: schools don't have it.
- Do show things that can't normally be brought into the classroom.
- Do show children and scientists at work.
- Do show girls and women in positive roles.
- Do point out the relevance of science in everyday life.

Perhaps the most challenging suggestion was that the series should promote **active learning**, that teachers and children should do things other than merely watch the programmes. Not the easiest thing to do, as television is, by nature, a passive medium.

Planning the programmes

The next stage, planning the shape of the programmes, was the most difficult. This was where the production team most needed advice from teachers and where they encountered what they saw as the great divide between teaching and producing television programmes. The programme-makers found it very hard to see the adviser's point of view, even after spending some time in science classes. It was difficult for them to grasp the fact that children can understand one idea but not another.

At the same time, the teacher-advisers found it hard to provide positive ideas about how to put the programmes together. They would agree that 'Keeping Cool' was a good subject, but could not suggest much about what it should include, nor how the programme might start.

Programme style

In the end, we decided on some important stylistic principles. We decided to have no presenter, partly because a good presenter might have looked like a super-teacher and might have undermined the position of the teacher in the classroom.

We decided to shoot the entire series on film, and do nothing in the studio. A studio would have been a good place for a presenter to carry out demonstrations, but without a presenter we thought it would be better to stick to film. We thus had to find some other way to get ideas and experimental details on the screen. In practice, we used a variety of techniques, from slow-motion and giant close-ups to graphics and cartoons.

We decided to avoid major photographic trickery, but to use every means possible to make our points clear. We wanted our science to be transparently simple. Slow-motion and giant close-ups are excellent devices for focusing attention on the action, even if readying the macro lens took up a great deal of filming time.

We made use of an animated graphic throughout the programmes – a pin-ball machine that punctuates the programme and suggests which part of the scientific method the viewers should use next, whether they should look, think, guess or try.

For example, the symbol 'Look' suggests that the viewer observe what is happening next in the programme. The symbol 'Think' appears after questions have been asked in the commentary. 'Guess' suggests that the viewer come up with explanations for things he has observed, and 'Try' precedes a section on practical work being carried out by children or scientists.

We also decided to put breaks in the programmes, much to the consternation of many television producers who felt that by doing so we were no longer making television programmes. We did this for two reasons.

- First, we did not wish to overload the viewer with too many ideas at once.
- Secondly, we felt that a pause could help the programmes generate 'active learning'. We could end one part with a question, and start the next section by developing an idea that provides the answer to the question.

Programme format

Each programme addresses a general topic (such as 'Keeping Cool'). The programme starts with a real problem ('Why do people and other animals sometimes overheat?'). By the end of the programme, children should have some ideas about solutions to the problem. Each programme is made in three or four parts, with clearly defined breaks that can be used for discussion or practical work. We assume, of course, that the programmes will have been recorded on tape.

Teachers' notes

We produced notes to help the teachers, believing that it is necessary to preview the programmes if they are to be used effectively in the classroom.

The complete book of notes starts with an explanation of the series, showing how the programmes set out to do two things: develop a feeling for the process of science, the methods used by scientists as they find out, understand and explain how things work; and provide a useful foundation of scientific ideas and information that pupils will be able to build on in later years.

The programme format is explained, as is the concept of 'Look, Think, Guess, Try', and there are suggestions as to how the teacher should record the programme and preview it on his own, and how he might stop it at certain places.

Two pages are devoted to each programme. The left-hand page gives a summary of the scientific ideas contained in the programme, hints for the teacher on how he can use the worksheets provided for pupils, and suggestions for further follow-up activities. On the facing page, the contents and a summary of the programme are on the left-hand side and, on the right, under points for discussion, are a series of questions for the teacher to try out with the pupils.

Pupils' worksheets

We wanted to achieve active learning, having the pupils do things after watching the programmes. Asking questions repeatedly in the commentary is one way of stimulating active learning; practical exercises and experiments are another.

We therefore produced a set of worksheets for pupils with photocopiable notes for pupils. These contain practical exercises that encourage the pupils to carry out and test practical work and use ideas explained in the television programme. 'How Can An Elephant Help You Cool Your Tea' is just one such exercise. It encourages pupils to design and make three different tea cups, then to test which design cools down the fastest. This exercise illustrates how objects with larger surface areas cool more quickly than those without, a subject covered in the programme "Keeping Cool".

We developed a further way of getting the pupils to be more active scientists. A number of Computer Simulations have been produced which incorporate ideas from the programmes. In one called "Bighunt", for example, a puzzle game, the pupils have to play the part of Environmental Health Officers and try to find the cause of an outbreak of illness that spreads across a village, and in so doing they have to use the scientific method.

Publicizing the programmes

The whole of the multi-media package (television programmes, teachers' notes, pupils' worksheets, computer software) represented a major investment for us, and we thus decided to put a lot of effort into publicizing the programmes, so that they would be widely used by teachers.

The ITV School Television Service publishes an Annual Programme Booklet that provides details on all the programmes to be transmitted the following year. The booklet is sent free to all schools in the United Kingdom. Worried that teachers might not notice our new series in the booklet, we decided on three further initiatives. First, we sent a letter personally addressed to the head of the Science Department in every secondary school in the United Kingdom, with details on the series and why it was new and worth watching. Second, we advertised in the two important national weekly newspapers for teachers. Third, and perhaps most important of all, we decided to mount a series of previews for science teachers and to attend their annual conference, where we set up a stand and showed "Scientific Eye". Here Adam Hart-Davis, the producer of the series, spoke widely and eloquently to a great number of teachers.I believe that the early success of "Scientific Eye" was largely due to the word-of-mouth publicity on the part of teachers as they talked to colleagues about what they had seen.

We realized at the outset that the format of "Scientific Eye" was not straightforward and that not all teachers would be happy with its style, with stopping the programme and with its densely packed materials. Early reaction to the series bore this out because, although more than 43% of secondary schools immediately started taking the series, there were some teachers who were not using the programmes well. Of course, it wasn't just "Scientific Eye" that they were not using well; there are still many teachers who do not welcome television in the classroom.

We decided therefore to make two programmes for teachers on how television could help in teaching science and how "Scientific Eye" could be used by them. These programmes were first broadcast in the summer of 1987. Here, we decided not to have an in-vision presenter. No one person would be right for all teachers.

The programmes started with a succession of different teachers talking about how and why they used television. We then showed how one of them used it, stressing the importance of planning the lesson, familiarizing the pupils with the subject before showing the programme, organizing the room, and various other things, before showing how the teacher might use the pause button.

The first series of ten programmes was produced in 1986, the second series of 20 programmes with computer software followed in 1987, and a third series was broadcast in 1990. The programmes are available on cassette and sold through YTV's catalogue of educational cassettes.

Largely as a result of our success with the "Scientific Eye" programmes, we were asked by the National Curriculum Council, an arm of the Government's Education Department, to make three programmes to help teachers introduce a new national science curriculum. The significance of this request was not so much that they asked us to make the programmes, but rather that they, an offshoot of the Government, decided to **use television as a means** of communicating their message. Over the past three to four years, the Government has not only accepted that television has a role to play, but is spending quite large sums of money in using television educationally.

The new Broadcasting Bill, which will shape British television after 1992, says clearly that there must be an ITV service for schools in addition to the one provided by the BBC. There was not anyone in British television two years ago who could have hoped for such a positive statement from the Government.

We in the ITV Schools service and the BBC have made great advances in providing programmes that teachers have **valued**. We have made a great effort to document our success with teachers and pupils. And we have told everyone about it – not just the press, but the general public, Members of Parliament, and the Government. We have concentrated on providing a **service** for the schools. We have worked hard to find out what teachers want, what programmes work in the classroom, and then to try to make them and market them strongly.

My question is not, are the programmes liked, but did we go about making them in the right way? Here are some facts that may provide an answer:

- 43% of secondary schools show the programmes for pupils;
- 22% of secondary schools use the INSET programmes for teachers;
- 20,000 copies of the teachers' notes have been sold;
- 13,000 copies of the pupils' worksheets have been sold;
- more than 6,000 copies of the book for pupils have been sold;
- more than 600 copies of the computer software have been sold.

Internationally, "Scientific Eye" has sold to 28 countries all over the world from Australia and New Zealand to France, Netherlands, Switzerland, Sri Lanka, Malaysia, Finland, Czechoslovakia and Yugoslavia.

Paul Martin

School Television and the Teaching and Learning of Science in the Primary School

Preamble

Good teachers are by nature acquisitive. The fossil in the cliff chalk, the dynamo from a discarded bicycle, or the fragment of calcite crystal collected on a school outing, each has its place in the classroom. Good primary schools can be recognized, not by the quality or size of the buildings, but by the range of interesting materials on display, available and accessible to children.

Teaching is the process that brings together the natural enthusiasms of children to extend their understanding of the things around them with the language, skills and insights of others that offer children support in their learning.

Television, as just another resource within the classroom, available to pupils and teachers alike, fits well with this eclectic view of curriculum. The development of educational broadcasting in the United Kingdom has not been as a corollary of the 'educational technology school' of thinking that takes a particular and often narrow view of the learning process. Rather, educational broadcasters have preferred to subscribe to a philosophy that recognizes the richness and variety of ways in which children develop their personal understandings of the world.

Of course, children learn from television – and so do adults –, in the sense that they acquire new pieces of information or add intriguing images to their collections. However, those new experiences need to be absorbed into an already existing and adequate life view. It is the process of enacting those insights, the act of making that new understanding unique and personal, that recognizes learning to be more than just a consequence of teaching.

The National Curriculum

In 1989, schools in England and Wales acquired a National Curriculum. For over a hundred years of state-funded education the detailed day-to-day activities of schools had been the responsibility of the headteacher, increasingly influenced by the requirements of the public examination syllabuses as children moved closer to school leaving age. The purposes and outcomes of much of the work in the primary sector remained within the control of the headteacher.

Legislation now places such a responsibility with central government. Whilst the National Curriculum is described in terms of end-points, the knowledge and skills that children should possess to various degrees at key points in their schooling, the ways in which these ideas could be introduced to children is still left to the discretion of teachers.

Many teachers viewed the National Curriculum with considerable suspicion. The rationale for such a Curriculum, and the frantic timing of its introduction, seemed more concerned with a wider political agenda of choice and accountability than with necessarily raising the general standard of educational provision for children. A National Curriculum, together with standardised assessments at various stages in schooling, would enable both pupils and schools alike to be rated and ranked, without any concern for the differing environments in which such scores were produced.

But in writing down a range of curricula, as experiences to which all pupils were legally entitled, primary school teachers found that, for the first time, they were required to prepare and introduce a comprehensive set of science activities that offered pupils progression and development from the first years of infant schooling, age five, until the move to secondary education which happens at various times depending on the local pattern of primary education but is generally completed around age eleven.

The difficulty for many if not most primary teachers was their own confidence with these new science requirements, a subject for which the majority had had no professional training and which many had dropped early during their own school career.

The demands of the National Curriculum have given a new impetus to the development of science in the primary school. But a pressure for more science education for the younger pupil is not itself new. And science, under the guide of nature study or as an aspect of topic work, has been a regular and important part of the primary school curriculum for many years.

What is new is the range and the rigour of these new demands on teachers, expressed in the National Curriculum. Often for the first time, primary teachers are now required to involve themselves with the physical sciences – physics and chemistry, as well as the more familiar work in the biological sciences.

Recent reports by Her Majesty's Inspectors of Education, a body at least in part independent of government, recognizes that the amount of science taught in primary schools over the last ten years has increased markedly. In achieving this, television is specifically mentioned as one of the important sources of starting points for scientific investigation.[1]

Those Inspectors recognize that progress has been slowed by the lack of knowledge about science on the part of the primary teacher. Such inhibitions about the subject itself are reflected in the planning for children, which can result in fairly limited tasks for scientific investigation.

Broadcasting and in-service education

Most television programmes produced by education departments in the United Kingdom have been directed at pupils, usually viewing in groups and often in the company of their teacher. A lesser number has and will continue to be prepared for use by teachers as part of their own professional development activities.

But it would be wrong to see these two types of educational production, each with its own well-defined audience, as truly separate and distinct. Those series planned for pupils also offer implicit help to the teachers in the audience. In-service education for the teaching profession, both directly and implicitly, is one of the continuing and perhaps under-valued strengths of the medium.

Science programmes have always formed a significant and important part of educational television broadcasting in the United Kingdom, over the thirty years of its history. Many of the earliest productions, directed at the older pupils of the secondary school, were planned to bring into the classroom illustrations and demonstrations not immediately available within the school.

There has been a continuing supply of such programmes, drawing on rare expertise and extending the horizons of the school laboratory to the factory down the road, or to locations on the other side of the world. Such essentially 'instructional' programmes fitted well with the styles of teaching typical for the older science pupil in the secondary school.

The abilities of television, to juxtapose images, to highlight some part of a complex activity, or to take the viewer into areas that would otherwise be inaccessible, have provided an expanding set of resources for the classroom professional. Television cameras peered into the dangerous insides of the nuclear industry, caught the pouring of steel in the foundry, or the damaged wildlife, fighting for existence in the oil spill some thousands of miles from the laboratory in which the programme was viewed.

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[1] Department of Education and Science, HMI: Aspects of Primary Education. The Teaching and Learning of Science. 1989

But science on television is not simply a collection of images, rich in information, appealing only to our need for knowledge. The dying animal, or the sugar lump dropped into the cup – captured on high-speed film, or the concerns about environmental change, each has the potential to affect us, to colour the way we think and feel about the world. Good science television is not simply a rich visual encyclopaedia; good science television, like the good play, appeals both to our cognitive and to our affective needs.

Television in the primary classroom

There seems to be an assumption that the educational potential of television is self-evident, that teachers will know instinctively how to use the medium to their advantage. But, a study of the use of television rarely forms part of the initial training of teachers. New teachers come to use television because of the habits of their colleagues or through the encouragement of their new headteacher, rather than because the medium has been presented to them as a potentially powerful ally in the classroom.

The variety and pattern of use of television varies widely, and not simply to reflect the diversity of the student audience. Some primary schools, but certainly the minority, have sufficient hardware – both televisions and video-recorders – to build up an expanding stock of programme tapes, recorded freely off-air. Some otherwise well-equipped schools are so short of funds for resources that those tapes are used only for 'time-shifting', allowing the class to watch what was broadcast on Monday morning during the afternoon of Tuesday, but using that same tape for over-recording a different programme later in the week.

Some teachers find time to watch programmes in advance, to judge the suitability of what is to be presented, or even to develop some complex strategy for stopping and starting the programme, viewing sections at a time. Some teachers encourage children to take ownership of the programme, surrounding the viewing with their own spontaneous comments and conversations; in some classrooms pupils watch in silence.

In some classes the television is used to initiate activity, in some to help in summarising work that has already been completed. In some classrooms there is no practical activity associated with the television science, but only an exchange of questions and answers between teacher and pupil. In others television forms a convenient break, a change in pattern that separates the 'real' work from 'just a television viewing'.

'Good educational practice' will have a place for all those different practical uses of television, which will be appropriate in certain places and at certain times.

Television producers may have planned their productions as entities, to be watched and considered as a complete experience. But if individual teachers find those programmes to be more effective when watched in pieces, then that is the right way to do it.

What is certain is that children possess complex and highly developed abilities to decode the television image and understand the conventions of the medium which make teachers' concerns to stop a programme 'because they won't understand', often unnecessary.

Educational television is increasingly represented as some small part of a much larger edifice, in which the programme viewing is surrounded by activity that gives children first hand experiences of some parts of that television programme. In practice it seems likely that there are a number of important constraints that corrupt this 'grand design' view of broadcasting.

Limited time and resources, programmes that only partly reflect the interest of the pupils, programmes that only touch on the work of the classroom, programmes that raise interests in children but which a teacher feels uncertain about developing, or programmes that simply are not good enough, all reduce the degree of integration between television and on-going school activity.

Television, like any piece of curriculum resource, was written for certain times and for certain places. Educational broadcasts will rarely match the precise needs of individual teachers; teachers will use those sequences and ideas that are useful to them, but discard the remainder.

Perhaps two further things should be said about the use of television in the classroom. A television programme, in a similar way to the reading of a story or a poem, may have more meaning to children and teacher alike some time after that initial viewing, and once children have acquired other experiences. Good teachers know instinctively when the television programme should be left until later. 'Doing something' with a programme may be second best to doing nothing – for the moment.

Similarly, it would be unfortunate if the success of television science programmes is judged simply on their ability to encourage practical activity in the classroom. Scientists undoubtedly spend at least some of their time organising experimental work; it seems likely that they spend a very much longer time thinking about what to do and sharing their thoughts with their colleagues. Science through talk is not a second best to science through practical work. Each forms an important part of the repertoire of 'real' scientists – both adults and students.

A summary of our activities over the last fifteen years would mention the following:

1. Between 1966 and 1991, Central Television and its predecessor, ATV Network, have produced some 76 programmes in support of junior school science, 19 hours of television, broadcast throughout Great Britain.

Each programme has been supported by a comprehensive manual for teachers, providing advance information about the series as a whole, a scientific background, and suggestions for activities in the classroom which could be integrated with the television viewing.

Most recently, this package has been complemented by sets of software, offering students the opportunity to use computers in support of their scientific investigations. Most of these software materials have been developed in the area of data collection, handling and display. They employ a sophisticated and extremely powerful data-handling package but one that was written with the child user in mind and is 'friendly' to the junior school pupil.

Our latest series is further supported by a set of four full-colour books, prepared for use by children and published in association with a major educational publishing house.

All these elements are available as separate items or together as a pack of materials including the television programmes themselves in the form of videos.

2. Each series has been transmitted for up to five years, with individual programmes up-dated or replaced within that period in response to the judgements of teachers.

Feedback from teachers through report cards, informal discussions and regular classroom visits has formed the basis of a formative evaluation process which, in conjunction with the advice of curriculum experts, has guided subsequent productions.

3. The use in school of televised science programmes has varied over the years in ways that cannot be related immediately to the quality of the programmes; but these science series have attracted annually between 11% and 32% of all primary schools, up to 8,720 schools or 15,700 individual classrooms.

4. The direct cost of all these productions, calculated at 1991 prices but excluding overheads would amount to around £2.3M.

5. The latest and most popular of the series, "Science – Start Here!", won the annual award given in the United Kingdom by the British Association for the Advancement of Science for the best science educational material on television in 1987 and again in 1988.

The programmes

With hindsight, it is possible to recognize a strand of argument and development that links the first of our primary science productions in 1976 to the current series. Those series were developed under three separate titles: "Look Around" was followed in 1980 by "Starting Science" and replaced in 1987 by "Science – Start Here!".

"Look Around"

In the mid 1970's words like pollution, environment and conservation gradually spread from the middle pages of the more demanding journals to become part of school conversation. Widespread in-service initiatives in science and the defining of a National Curriculum were still doodles on the blotters of the Department of Education and Science.

The Sunday Times, amongst others, was sponsoring the WATCH Trust for Environmental Education. Children were encouraged by newspaper articles to measure the cleanliness of their beach at holiday time, to assess the acidity of the air by looking for lichens, or the cleanliness of their local river by the range of water life.

"Look Around" was a series that attempted to reflect those concerns. It took a range of urban and countryside issues, presenting these in a direct, documentary style for a junior school audience. The programme involved no presenter, rather it visited places and people, using voice-over commentary and interviews, in a fairly uncompromising adult type presentation.

There were no sequences shot in schools, nor did children themselves contribute regularly. The programme subjects included the re-use of water through sewage processing, oil and its effects on sea life, the change in our shopping patterns and the consequences on social life, noise from roads and airports and so on.

Teachers and children were encouraged to extend their practical activities by using the WATCH packs whilst the teachers' booklet made a range of suggestions for activity following the programme, often taking the form of surveys or observational work using or developing 'Town Trails' or their countryside equivalent. A few of the suggestions for practical work can seem strikingly naive now, some years on.

Children were encouraged, under a heading, 'Messy Experiments', to remove, sink or control oil spread on class-made sea water. But, in the main, the suggestions for work did not dwell on much genuine experiment. Rather, they proposed extensive observation in the environment immediately around school and home, the searching for information, and the devising of surveys. The 'journalist' approach to science was summarised in the booklet introduction as follows:

> "It is suggested in the course of these teachers' notes that one or two of the projects might be of adequate importance to forward to the local newspaper. If, in the course of an investigation, children find a factory polluting a river, find that a group of old-age pensioners are at a loss because of the sudden closure of a local shop, find that they could improve a plot of derelict land with a bit of effort – what are they supposed to do about it? Forget it?"

At its peak, "Look Around" was followed by some 3,000 primary and 400 secondary schools, or 11% and 7% of the potential audience.

"Starting Science"

From 1980 and for the following six years, we developed a strand of alternative science programming, again for Junior Schools, under the running title "Starting Science". Fourteen programmes were shown in any one year, but these varied as the programmes were changed and improved.

The overall aim of the series was to supply both teachers and pupils together with a range of ideas from which they might pick and choose elements to try for themselves or which might be extended into novel activity. As such, the series was devised around a list of topics provided by the teacher/writers, drawing on work that had been successful in their own classrooms.

One further aim was to persuade teachers that much of what they already did in areas of project work might be extended relatively easily to become science. The series was studio based using adult presenters both to talk to the audience and each other, at the same time suggesting and demonstrating activities for 'follow-up' work. The studio sequences were supported by pictures and music, poetry on occasions, together with film clips of children in the classroom.

The reaction to those early programmes was often critical. Teachers found them overwhelming; pupils, it was said, were left perplexed. The ideas were too many and too inadequate in detail. The information was too sketchy. No-one knew what the programmes were saying; the children appeared to learn little as a result of viewing. The practical suggestions were lacking in clarity and contained insufficient detailed instruction.

Still, a minority of schools liked the programmes. These schools were often those where science activities were well developed and teachers felt confident, either in the scientific matters of the programme or, in working in areas where they themselves did not know many of the 'answers'.

The original "Starting Science" was replaced over two years with a brand new series under the same title, school-based and less frenetic in its presentation. These new programmes maintained those previous elements of school activity, but now longer and less in number.

Most fifteen-minute programmes contained two to four extended school sequences, showing children 'doing' science. Much of this science was physical science although physical and biological elements were often interwoven. The schools were contrasting in style and location, from the centre of Nottingham to the rural backwaters of Cambridgeshire.

It remained our conviction that children would respond to an inviting, sympathetic adult who could 'converse' without patronising them. By exclusive use of film, the presenter could be taken to a range of 'exotic', out-of-school locations – not too far from ATV's base in Birmingham! Out from the series went the poetry, some of the musical sequences and most of the suggestions for work.

In came a series of Activity Cards, presented as part of the booklet, with two cards per programme. Whilst these cards were not devised as work cards for independent use by children, many schools reported copying them and using the ideas in this way.

Most of the activities were relatively simple investigations, accessible in the classroom and often achievable within a few hours. Some schools reported spending weeks on projects. In also came two glossy "Starting Science" books, produced in co-operation with the educational publishers, Thomas Nelson, whose expertise with colour printing complemented the television imagery.

At its peak, "Starting Science" was watched by some 6,550 primary schools, 23% of schools having children in the 7 – 9 year-old target audience, with a further 4% of secondary pupils. The series, generally, was regarded as successful. It held and increased the size of its audience over the years. School visits found many classrooms active with investigations, springing from the television viewing. But there were also anxieties.

A small majority of teachers seemed to prefer to follow the programme with discussion, and there was some doubt about how much practical activity did follow from the television viewing. In some cases the broadcast examples may have appeared too complex or to have been insufficiently explained for viewers to recreate in confidence.

There was some suggestion that the supporting booklet was not detailed enough. Some teachers complained that there was too much material in the fifteen minutes, too many ideas that were not considered in depth. A similar criticism suggested that children did not 'learn' enough during the fifteen minutes, the 'teaching' of the programme was diffuse, un-focused.

Some teachers stayed with the series, despite these concerns. Others stopped watching the series. A proportion of teachers viewed only those programmes that fitted with their own, school-based, science curriculum. A majority of teachers did not view the series at all. Our understanding of such decisions is only fragmentary.

Certainly, some teachers find television an irrelevance in the relationship between teacher and pupil and of these some will be satisfied with their own schemes for science. Some proportion of non-viewing teachers find the plans of the television producers un-related to their own schemes and the benefits of the medium insufficient to make changes worthwhile. Some teachers undoubtedly find television an embarrassment, suggesting activities and provoking questions which may make demands on the school and staff that cannot be met.

"Science – Start Here!"

In Autumn 1987 a new series of fourteen films replaced" Starting Science", intended for an audience throughout the Junior School, eight and over. The series was described in the accompanying booklet as follows:

> "The programmes aim to support teachers who are starting science by presenting activities that have worked successfully in many schools. Many experienced teachers will find the programmes useful in extending the range of their science and technology work. As far as possible, these activities can be pursued using materials commonly available in classrooms."

Later in the booklet the authors write that "the series is intended to lead to purposeful and rewarding activity; watching the programmes alone does not constitute studying science."

Accompanying the series of fourteen broadcast programmes was a fifty page, large format booklet written for teachers and two discs of software with a printed computer guide. The booklet outlined the background to the series, locating the programmes within six broad themes that are common to junior school activity.

Furthermore, the notes attempted to consider a number of underlying science skills and to identify those that could be exploited in the follow-up to particular programmes. Besides a summary of the programme, the notes provided two further pages, one with a topic web that located the programme into a rich network of ideas. The second of these pages could be photocopied for use by pupils as investigation cards, supplying brief instructions for experimental work.

The software complemented the printed and video material, offering pupils the opportunity to collect and analyse a range of data, from the bird visitors to the playground to the dimensions required for a third form table and chair. Four data handling programmes were included, on body measurement, bird observation, weather and food, each with the ability to supplement school observation with broader based statistics.

The "Food" programme considered a child's intake over a period and provided information about balanced diet and typical energy needs. The "Weather" disc could compare conditions for locations throughout the United Kingdom over a period of twenty-five years and incorporate a school's measurements into such an analysis. Several thousand copies of the software were sold in the first year.

The television programmes showed major changes. Out went the adult presenter, the commentary when required being in a 'voice-over', supplementing the voices of children as they were recorded in schools. In came a three-part presentation with suggestions that, on occasions, teachers may wish to view or review the programme in parts rather than a whole.

Each of the three parts was planned to reflect a particular body of science skills, observing, experimenting or improving an aspect of a device through technology, although such distinctions proved difficult to maintain in a flowing television presentation. In came considerably extended classroom sequences, compared with previous series. Some programmes were located entirely in and around schools; some programmes used home locations. All the programmes used children as the focus for activity.

By any standards, "Science – Start Here!" has been a major success in the history of television broadcasting, reflected not only in the awards it has won but the very real use that has been made of it in the classroom. The material for "Science – Start Here!", as part of a long-term and continuing commitment to the encouragement of primary school science, is probably rightly described as the most complete of all science packages available in the United Kingdom.

For the coming years the "Science – Start Here!" materials will be developed and extended to embrace Technology, also a part of the National Curriculum for primary schools and an area which is also of concern to teachers with little background in the subject.

Reflections

In many ways the history of educational television in the United Kingdom can be seen as a process of continual self-criticism, a medium searching for a role in an educational world which itself is continually changing. Despite the pervasiveness of the medium, – 99% of schools claim to use television at some time during the school year –, there have been no long-term studies of the educational potential of television, other than those carried out by the broadcasters themselves as part of their continuing activity. Research has generally been parochial, seemingly disinterested, and often anecdotal.

The current pressures on educational broadcasters to justify their privileged access to television time suggest that a more rigourous approach to the evaluation of programmes is well overdue. The dilemma has always been to find research techniques and instruments that can identify common elements in the richness and diversity of school classrooms. Such techniques need to be sensitive to the complexities of an educational milieu, where television is just one of a number of influences on the learning of children.

The frameworks for such a style of evaluation may derive from an 'illuminative' view of research, that looks for its data in the conduct of individual classrooms rather than through the simplifying and often misleading application of questionnaires, survey and statistically based techniques. The disadvantages of such methods, which search for a theoretical structure in the interactions and artefacts of the classroom and through open-ended discussions with pupil and teachers, are the time and the costs involved in such long-term investigation.

Moreover, it is far from clear whether such fundamental research is in the responsibility of the educational establishment or the broadcaster. Television companies rarely have the expertise or the commitment to broad and basic research. But some questions can and should be asked about television and its effectiveness:

- Is the programme itself technically competent, by comparison with other television forms?
- Does the programme have a 'plasticity' that allows it to be moulded and used by a variety of teachers in various situations?
- Does the programme have a 'utility' in the sense that it is relevant to the curricular needs of schools, and is perceived by both pupils and teachers to be so?
- Is the programme intelligible, appropriate in terms of language level and theoretical development, and makes only sensible assumptions about the prior knowledge of the audience?
- Is the substance of the programme appropriate in the sense that it is contemporary, reflecting current issues?
- Are the images of the programme appropriate? In particular does the overall message of the programme promote a view of science that is properly sensitive to issues such as stereotype in connection, for example, with the portrayal of women and cultures other than the dominant culture?[2]

A more general framework for the discussion of television in schools might be constructed around the issues of integration, of quality and of commitment. Integration implies a rich and developed understanding of the place of television in schools, as a resource to be used by pupils and teachers in their work to make the information which is presented to them both rewarding and personal. At a lesser level, integration also refers to the range of mutually supporting materials available

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[2] Cf. Watts, Mike; Bentley, Diane (1987): What makes good science education television?

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in schools, drawing on the particular strengths of the various media that will include television, radio, photographic images, computer systems and print in various forms.

A striving for quality in television production has two distinct but related interpretations. In the narrowly educational sense, quality has been seen as synonymous with effectiveness. A programme has quality because of its ability to influence and affect its audience in ways that support the needs of the individual and the workings of the classroom. In a more general sense, quality can also be identified in the workings of the programme producers. It is located in the culture of the broadcasting company and a concern to continually improve its products.

The notion of commitment in public-service broadcasting looks to the broadcasters to develop and extend their educational packages by investment over long periods of time, reacting to and reflecting the needs of an audience. But commitment may also be required from teachers and those concerned with the planning and provision of education to ensure that educational broadcasting itself is to survive the upheavals of technological change and the implications for a radically different political agenda.

David Rosevaere

Television, Mathematics and People

Mathematics as a language – international?

In 1980, in company with other delegates to the 4th International Congress on Mathematical Education, I was viewing a television programme aimed at Japanese high school students. The sound had been dubbed into English and the programme began with images from the real world before leading into an algebraic formulation, written in our familiar Western alphabet, using exactly the same symbols. These caused no problem for the Congress audience; "but", said the commentary, addressing the absent target audience, "this may be a little frightening. Let's make it easier to understand by putting it into words." The screen immediately became filled with Japanese ideograms and we all roared with laughter, to the consternation of the Japanese teacher who was presenting the programme to the international audience. Here was a paradox: the highly compressed symbolic notation which deters many would-be mathematicians was for us a lifeline in a sea of incomprehensibility.

Learning a language

The experience reminded me that

- 'ordinary' written language precedes symbolic mathematical language;
- written mathematics is a language;
- spoken language precedes written language;
- concepts, mathematical or otherwise, should be acquired almost simultaneously with the words which describe them: learning the vocabulary (or inventing one's own) should be the natural outcome of a learning process;
- the acquisition of concepts must be preceded by sufficient visual and/or tactile experience on the part of the learner.

Acquiring mathematical concepts

Beginnings

Consider how as an infant you learned to associate a sequence of sounds ("one", "two", "three", . . .; "un, deux, trois, . . ."; "eins, zwei, drei, . . ." etc.) with items in a set of objects and later to use a single sound in the sequence, for example "three", to describe the property common to such sets as {knife, fork, spoon}, {mother father, me}, {a, b, c}, {1, 2, 3} and, by extension, to any set which can be put in 1 : 1 correspondence with these.

In reaching that second stage, you had grasped "the threeness of three" – the idea of a cardinal number – and in doing so you were thinking abstractly. Only later would you have learned numerals ("three", "trois", "drei", . . ., III, 3, etc.) representing the concept. Number remains an abstraction – no one has ever seen the number three.

Failure

Despite this remarkable achievement of civilisation, the fact remains that for most people, mathematics remains a mystery – something they were forced to learn at school and which they found difficult. Often they will say that they did not understand what they were doing.

A little probing may reveal that they were frightened by the compressed symbolism. But symbols as such are not necessarily a problem – most of us have gone through a stage of being able to push symbols around and obtain 'correct answers'. The problems arise in the transition from the real world to a mathematical model of part of it, and vice versa.

A coherent analysis of failure in mathematics learning is outside the scope of this paper; I will simply state that some of this malaise stems from insufficient visual and tactile experiences which we all need before we are ready to create our own mathematics – that is, to extend our own schemata, or personal framework of ideas. Only when we have, in this sense, made the mathematics our own are we ready to accept other people's definitions, however they are communicated, for the sake of being able to participate in a common language.

The role of film and video

Popular misconceptions

When a stranger at a party asks me what I do for a living I sometimes reply that I am involved in mathematics education. This usually produces the response that they never could understand the subject and will I please excuse them as they have just seen a long-lost friend on the other side of the room?

If, however, I say that I am a television producer, they say that it must be a fascinating job and ask what it is that I produce. "Drama," I reply, "comedy, fantasy, animation, documentary, . . . " I try to give the impression that I am a jack-of-all-trades, carefully omitting to add that in consequence I am a master of none.

Even with such a ruse, truth will out and I am eventually forced to admit that the drama, comedy, etc. are all done in the name of mathematics education. "But mathematics isn't visual", comes the response. "Nor is Shakespeare", I counter, "just marks on bits of paper. And Mozart left no sounds to posterity, just more marks on paper."

We must not mistake the symbol for the idea.

What should film and video do for education?

The simple answer is that, in general, film and video should do what the teacher in the classroom cannot do – bring the world into the classroom, portray issues by means of drama, illuminate an idea by means of animation and so on. What, then, should film or video do for **mathematics education**?

Reality: the utility factor

The same criteria apply to mathematics. Mathematics is created by people. People live in the real world, people are concerned with issues, people have ideas which cannot always be expressed in ordinary prose without pictures. Film and video can and should bring all of these elements into the classroom.

The mathematics that most of us use is the mathematics which has helped man to understand the natural world and to create the structures – physical, economic, social – in and by means of which we live. The bare minimum requirement for Western society we describe as 'numeracy' – how to add up a column of figures (with or without a calculator), how to read a train timetable, how to calculate interest rates, amounts of wallpaper, etc.

At a slightly higher level we need to be able to interpret presentations of statistical information, read and perhaps devise a flow chart. And it goes without saying that every branch of science would quickly come to a halt without mathematics.

The educational problem – for the teacher and for the film or video producer – is to relate the mathematics to the real world.

Abstraction: the fun factor

If mathematics is the servant of science it is also its queen. It can exist in its own right, independent of the real world.

Much mathematics is created purely for pleasure – an elegant statement of an abstract principle, a beautiful geometric 'object', a logical puzzle, an extension of geometry into 'space' of many dimensions, and so on.

Very often, the author's own enthusiasm can be communicated to others: the art of mathematics teaching is to put pupils in a situation where they can experience the excitement of creating their own mathematics, however trivial the result may appear to a sophisticated mathematician. It does not particularly matter if the result has no practical application; mathematics is not only a science, it is also an art.

Before I discuss the ways and means by which television can assist teachers in achieving either of these objectives, let us look at the educational technology.

Broadcast television

In the United Kingdom, regular television broadcasts to schools began in 1956. To begin with, nearly all television programmes were broadcast 'live'; they were certainly viewed as live transmissions. This had implications both for broadcasters and schools.

The legacy of the broadcasters

By 1962, videotape editing was possible but it was a cumbersome procedure for use in emergencies; the 'norm' was to rehearse carefully and then record a 20-minute programme in just 20 minutes! Inevitably, the programme format was simple by today's standards, usually involving a studio presenter (generally male) and a few film sequences – say 25% of the programme length.

The programmes were often recorded just a few days before transmission. This can still happen but the simple format made it possible, in the light of feedback from viewers, to make minor adjustments to the style and content of a series during the weeks of recording, rather than to record a run of 10, 20 or 28 programmes and review the position only at the end of the year.

The legacy of the schools

For the schools themselves, until about 1970, all television was effectively 'live': they had no means of recording programmes. In consequence, every school television programme, typically 20 minutes long, had to be designed for continuous viewing.

The state of the art: The broadcasters

In the United Kingdom, today's school television programmes

- generally move at a faster pace than their predecessors;
- use several different styles even within a 20-minute span;
- are not often studio-based;
- are usually made several months before their first transmission;
- apart from programmes of a specifically topical nature, are designed to have a transmission life of 5 or 10 years.

Feedback is as important as ever but

- it is relatively easy to edit programmes;
- the feedback takes longer to arrive – see below.

The state of the art: The schools

The fact that schools can – technically and legally – record television broadcasts means that

- they can use a programme when it best suits them;
- they can use the programmes of a series selectively as well as in any order;
- they do not have to start a programme at its beginning;
- they do not have to wait until the end of a programme before stopping the tape.

Non-broadcast film or video

The legacy

There has been a tradition, extending back nearly a century, of 'mathematical films'. These are normally silent animations that try to get across concepts, usually geometrical ones, which are difficult to visualise and almost impossible to demonstrate by other means. The early Nicolet films (since remade in colour under Caleb Gattegno's supervision) and the mid-century films of Trevor Fletcher, e.g."Four-point Conics" and others, are classics in this genre. Extending to non-geometrical concepts and with a gentle commentary is "Mathematics Peepshow" by Charles and Ray Eames.

The state of the art

Although we now use sound and live action, the tradition of making silent mathematical film/video has survived to this day, partly because a classroom computer can often be programmed to produce near-animation but also because the films or videos are intended to get viewers to think about what they see, instead of relying on a descriptive commentary, and to stimulate discussion.

Using broadcast television

Thirty years ago, School Television, like School Radio, was described as a 'memorable interruption'. For 20 minutes the class would be spellbound by the sights and sounds and would return to the world around them full of new knowledge and inspired to ask questions about things about which they had little or no previous experience.

Today, producers still strive to make their programmes memorable but would prefer to speak of teachers integrating their off-air recordings with the rest of their teaching.

The ideal

In an ideal world, every teacher would

- be fully conversant with all relevant video material;
- have a videorecorder permanently in her/his own classroom;
- preview all video sequences before showing them to the class;

- stop and start programmes where it suited her or him;
- write to the producers with suggestions for improving the quality and usefulness of the programmes;
- know that "television does not make it easier to teach; it can make it easier to teach well".[1]

The reality

Alas, we do not live in an ideal world. Few teachers have exclusive use of a VCR permanently in their own classroom; mathematics teachers probably have at least one computer in their classroom, not to mention a box full of pocket calculators, and it might seem grasping if they were to demand yet another slice of the school's financial allocation.

In the United Kingdom, every school constructs its own timetable but, as a crude generalisation, each lesson is between 40 and 60 minutes long. If a teacher decides to use a particular school television programme, typically 20 minutes long, she or he may be able to wheel in to her/his classroom a monitor-and-VCR on wheels but could very well have to take the pupils to a remote room, perhaps 5 minutes' walk away.

In such circumstances, it is understandable that a feeling develops for 'getting one's money's worth' and that any programme of under, say, 10 minutes' duration is not deemed worth viewing.

The mathematics lesson

It is generally accepted that the role of the teacher in a mathematics lesson is to initiate, to mediate, to assess – not to give a lecture. Except in those schools where learning is individualised, a typical lesson starts with the teacher outlining a problem or a mathematical situation which the class will then develop, each pupil in her or his own way. With a class of mixed ability, skilful selection of the 'starter' will enable abler pupils to extend what at first sight appears a very simple concept.

The starter can take as little as a few seconds. "There are 50 people in a room. Everyone shakes hands with everyone else. How many handshakes take place?" This was one teacher's total utterance before his class of 12-year-olds started to work in groups of three or four.[2] They did not need more than that. They certainly did not need television to show them what a handshake was, let alone show them a strategy. They needed to explore this open-ended situation for themselves.

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[1] Attributed to Geoffrey Hall, Head of BBC School Television in 1972.

[2] Aidan Harrington, Reddish Vale School, Stockport, seen in the BBC TV series "INSET: Secondary Mathematics", Programme 2 (1988); produced by the author.

Television in the mathematics lesson

Not all mathematics starts from such a simply-stated situation. Statistics in particular is the art of discerning and describing pattern in the less predictable aspects of the real world. But even there, there are problems for the teacher who understandably feels that her or his pupils should be doing something rather than watching and listening to something.

For the broadcaster in sympathy with such an objective there exists a dilemma. How can it be resolved?

Two educational problems

The reluctant teenage mathematician

ROSLA (Raising of School Leaving Age)

In 1972, the minimum school leaving age in England and Wales was raised from 15 to 16. This created pupils who would have left at 15, probably without taking any public examination, and were having to stay at school for a further year.

Motivating the less able teenager

As part of BBC School Television's provision for such pupils we produced "Countdown", a series of 28 20-minute programmes, aimed at those 14 – 16 year-olds who were expected to obtain at best a Grade 4 pass in the new Certificate of Secondary Education. In terms of mathematical ability this was roughly the lower half of the population in this age group.

"Countdown" was broadcast, fortnightly during school term, in a two-year cycle for six years. The programmes were nearly all studio-based, with a presenter, but some programmes also included dramatised scenes involving teenage characters. The final two programmes each year formed a two-part 40-minute dramatisation.

Dramatisation

In 1978 we limited the mathematical content of the programmes to what was required in everyday life by every citizen and produced a whole series "Everyday Maths" as a situation comedy, written by John Tully, in 14 20-minute episodes. In 1980s this was followed by "Maths Counts" in similar style.

Mathematical 'starters'

By 1985, video recording of broadcasts in schools was so well established that I decided the time was ripe for making programmes of 5 minutes duration, so that teachers could stop their playback and let the class work on a problem implicitly or explicitly posed by the programme. Three or four programmes would be broadcast end-to-end to facilitate recording.

Investigational methods in mathematics learning had been advocated by the Cockcroft Report[3], and I wanted to call the series "MI5" (for Mathematical Investigations – A series of 5-minute programmes), an abbreviation better known as part of the British Secret Service. The BBC's School Broadcasting Council insisted that the programmes be at least 10 minutes long, so the series eventually became "MI10", with two programmes being broadcast in each 20-minute transmission slot.

Taking my cue from an earlier BBC School Television modern language series, I introduced into each 10-minute programme at least one Pause for Thought – a caption held for 10 seconds when the teacher would have time to come from the back of the classroom and stop the tape in order to let the class discuss and develop the starting points given by the presenter in the preceding 2 – 5 minutes. Thus "MI10" had effectively become "MI2" + "MI5" + "MI3", for example.

Teachers, despite the carefully worded Notes accompanying the series, were slow to catch on. One teacher even wrote to complain that the pauses were too short!

More recently, in co-production with Encyclopaedia Britannica Educational Corporation Inc. of Chicago, the BBC has been making the series "Mathsphere" which also has tape-stop points, each incorporating a specific but open-ended question.

A case study: Mathspy

Three new problems:

Mixed ability teaching

By 1988, when contractual requirements meant replacing "Maths Counts" , the educational scene had changed to the extent that the 'ROSLA child' of 1972 was no longer to be regarded as a special case for treatment but was to be taught in mixed ability classes along with abler pupils. Despite this, I felt that there was still a case for presenting mathematics in a way which would make an appeal to such pupils but would necessarily be watched by the whole class.

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[3] Cockcroft, W.H. (Chairman): Mathematics Counts. Report of the Committee of Inquiry into the Teaching of Mathematics in Schools. London: HMSO 1982.

Mathematical material and the low attainer

For "Everyday Maths" and for "Maths Counts" I had been supported in my view that the only mathematics to be presented should be in the area of what is fashionably called numeracy – the mathematics you need to do the shopping, to read a railway timetable, to put up shelves, and so on. This was the received wisdom of 1972; the current view is that low attainers should be given the same starting points as the rest of the class.

For me this meant that the level of mathematics presented within the programmes should be within the grasp of such pupils; the additional developments for abler pupils would come in the classroom afterwards and would have to be sparked off by the teacher – aided by our Teacher's Notes.

Dramatisation and investigations

The interesting mathematical investigations which can be carried out at this level are on the whole not related to real life. No one really wants to know how many handshakes there are when 50 people all shake hands, although the problem turns out to involve the same mathematics as the Brussels problem of finding the cost of translating EC documents from and into all the European languages. It is an interesting problem in its own right. Should we therefore abandon the idea of dramatisation in favour of an updated version of "MI10"?

The fantasy world – a solution?

A year or two before we had to take these decisions I had been talking to John Tully, who had scripted "Everyday Maths" and "Maths Counts", about the likely move away from 'real world' mathematics into something mathematically more interesting than wallpaper calculations. It may have seemed like a gentle indication that I would not require his services for my next production for low attainers. John must have read it as a challenge – he came up with the idea of a spoof spy story.

The basic notion was that the world of espionage is essentially unreal – codes have to be broken, assignations have to be made in unlikely places, false identities unmasked and so on. The mathematics we needed could be incorporated in such a world, particularly in a comedy spy story without the risk of artificiality beyond the usual coincidences which one expects in any dramatised material.

The fast pace of the action would make 10-minute programmes feasible. Toward the end of each of the ten episodes the counter-espionage staff of Section Q –

trainee spy Rick, slightly more experienced female spy Sam, and their bumbling Head of Department Major Hurst – would face some mathematically-based problem whose solution would lead them closer to The Factor, the arch-villain who was running rings around the Secret Service.

They would start to think about the problem just before the credits rolled but the real work would be done by our viewers before viewing the next episode. In the next episode an answer might be given, in the sense that we would know what, say, a decoded message was, but the method by which the decoding was done would not be shown.

Help from London's East End

The next task was to identify ten mathematical starting points which on the one hand could be woven into the spy story and, more importantly, would serve as the basis for subsequent classwork. The first drafts were prepared by two members of BBC Education staff – Julie Cogill, the BBC's Education Officer for Mathematics, and myself. We then sent these to Mary Clark, at that time Head of Mathematics at a school in the East End of London where she had already devised and used various investigational approaches. Mary was well placed to assess the likely impact of our proposals on mathematically reluctant teenagers.

Once we had all agreed on the mathematical content to be included in each episode, this went to John Tully who was already working on the overall framework of his story. Further refinements were made when his first draft scripts came in, as is the way with all scripts. In the meantime, Mary Clark was writing the all-important Teacher's Notes which would indicate possible lines of development beyond the basic problem essential to the spy story.

Two mathematical examples

1. Cards

In one episode, Section Q have placed a secret camera which photographs the Factor's agents on their way to Room Seven which Sam has 'bugged': Sam, Rich and Hurst listen from Room Six.

The Factor addresses the agents by their code names East, South and West, which also indicates where they are to sit at a card table.

Each agent, including the Factor (North) is dealt three cards: Aces count as 1; Kings, Queens and Jacks count as 10. If a player is dealt more than one card of the same value he or she puts it aside and is dealt another card – until each player has three cards all differently numbered between 1 and 10 inclusive. They lay them face upward on the table.

The object is to construct as many numbers as possible, by addition and subtraction, using one or more of one's cards at a time. West, for example, has 2, 5, 9 and can form

$2 = 2$
$5 - 2 = 3$
$9 - 5 = 4$
$5 = 5$
$5 + 2 = 7$ etc.

The player who makes the most numbers will be chosen for an important mission. Our heroes hear the Factor congratulate the winner but do not know who it is. They burst into Room Seven – just too late. The villains have fled, but their cards remain on the table:

North: 2, 4, 10	East: 8, 9, J
South: A, 7, K	West: 2, 5, 9

Which player can create the most numbers? How many?

The least able viewers will be sufficiently stretched by this basic problem but abler pupils will be able to attempt an analysis to demonstrate that they have exhausted all the possibilities and perhaps to examine the criteria which create duplication. They can extend their researches to 4, 5, . . . numbers, not necessarily under 10. These possibilities and many more are dealt with in the Teacher's Notes for "Mathspy".

2. Stamps

As an example of an idea which had to be modified, I had been enthusiastic about an idea, originally from John Tully, in which a 4 x 3 rectangular sheet of stamps would be torn into two equal-area pieces along the perforations, the problem being to determine how many different 6-stamp configurations could be created.

By sketching all the possibilities one can count 33 different configurations but, as Mary Clark pointed out, it becomes much harder to do this for larger sheets, e.g. 5 x 6, and therefore is not really suitable for a mathematical investigation, even for quite able pupils aged 14 – 16.

Fig. 1: (3 x 4 stamps)

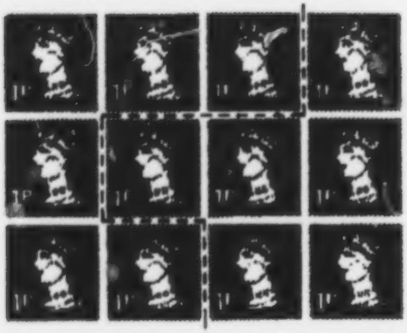
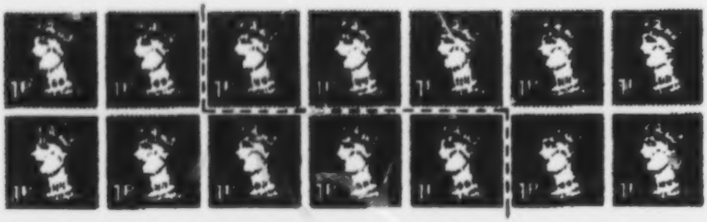


Fig. 2: (2 x 7 stamps)



By using a 7 x 2 sheet the number of different configurations falls to 13 and, more importantly, it becomes feasible for pupils to investigate 2 x 2, 3 x 2, 4 x 2, . . . n x 2 grids, that is, to generalize – the very essence of mathematical activity. It also made life easier for our Assistant Stage Manager, in charge of actors' props!

The production

Setting-up

The programmes were to be transmitted in pairs, like MIIO in 20-minute slots. It is a BBC requirement that a programme of nominal length 20'0'' should in fact be no longer than 19'15''. The linking caption, the opening title sequence and the closing credits would account for 45'', leaving 9'15'' per programme, or 92'30'' of dramatized action.

Spy stories call for many locations, costume changes, chases of various types, and it was obvious from the start that "Mathspy" would need to be shot almost entirely on location. At 3 minutes of cut film per shooting day this would mean 30 days' shooting – six 5-day weeks.

My budget restricted us to the London area in the sense that we had to start from London each day. Apart from one overnight stay on the Dorset coast for a dawn scene involving a small boat, the exteriors were mainly shot in South Buckinghamshire about 40 km from the centre of London.

We were able to use a dilapidated office in an old BBC building, which had the right amount of 'seediness' for the Secret Service's Section Q, another totally unfurnished BBC office as an interrogation room, and so on. Two sets had to be built on a film stage – a bedsit/bathroom composite for the farcical Episode 5 and a hikers' refuge hut for Episode 8 where our young heroes get trapped with a ticking explosive. (To escape they have to construct, out of an 18cm square of cardboard, a box with the largest possible volume!)

Shooting

I have been referring to 'film'. The style was indeed filmic, but we actually used a PSC (Portable Single Camera) recording sound and picture onto 3/4" cassette. Tape is, of course, much cheaper than film, and I was fortunate in having the services of one of the BBC's most experienced lighting cameramen who dispelled any prejudice I may have been harbouring about the all-purpose 'flat' lighting which I used to associate with electronic studios.

Post-production

Having been persuaded to shoot on PSC, I discovered that "Mathspy" was the BBC's first London-based drama to be made this way. I had expected to do the editing on film recording of the selected takes but an administrative error meant that we were also the first drama to be edited on-line within the PSC cassette system.

PSC editing was a mixed blessing: there is no syncing up to be done, but drama is full of overlapped sound and a great deal of paperwork has to be done whenever the sound originally recorded with Picture A is required to be heard with Picture B.

The programmes were dubbed within the PSC cassette system and the final editing, incorporating the title sequence and the end credits, was done on 1" tape.

Feedback

"Mathspy" was in general well received by the schools but the cliffhanger serial format meant that it was impossible for a teacher to use the series selectively:

"Mathspy" had to be viewed in toto or not at all. The most enthusiastic teachers were those who used individualised learning schemes.

Conclusions

"Mathspy"

Like any other television series, the series had its strengths and its weaknesses – there is no universal recipe for success in this medium, and if there were, computers would already have replaced human producers. Each generation of children has different needs and each generation of teachers – and television producers – must be ready to meet these needs.

British mathematics

In Britain our best-known mathematicians – from Newton onwards – have been 'applied' rather than 'pure' specialists. The empiric approach of the applied mathematician-physicist-engineer is echoed in our heuristic approach to education in general and mathematics education in particular. This in turn is reflected in our television programmes about mathematics and is perhaps one of the reasons why transatlantic companies are interested in mathematics co-productions.

World mathematics

Our mathematics is strongly rooted in the real world, a world inhabited by people. Mathematics is created by people, for people and much of it concerns people. But perhaps we human beings are too self-centred as a species.

The current BBC/EBEC co-production "Mathsphere" took its title from two ideas:

- The sphere of mathematics' applications extends to many different aspects of life.
- The ecosphere in which we live is a complex organism: mathematics can assist us in understanding it.

Primitive man, or today's small child, coming to terms with the "threeness of three" took a significant step in realising that she or he could usefully put a name to the property common to the sets {orange, apple, banana}, {Afzal, Boris, Conchita}. Five year-olds Afzal, Boris and Conchita may coexist happy in their classroom but their parents and grandparents have created an enormous set of interlinked global problems which they will have to solve. Some of these require diplomacy more than mathematical expertise, all require a greater understanding of the planet and its inhabitants.

When Afzal, Boris and Conchita leave school in the twenty-first century, I hope their mathematical education will have left them with three positive views of the subject: It is fun. It is useful. It can help me put issues into perspective.

If schools are prepared to address the mathematics, not only of the real world within walking distance, but of the planet itself, they will find that television can offer them insights, motivation – and provide some fun. I offer a title for a future article:

"Mathematics and Gaia"

Paul Martin

School Television and the Learning of Mathematics

Preamble

The vocabulary of social science includes many novel corruptions and distortions of the English language. 'Satisficing', we are told, is a corruption of satisfactory and sufficient. It is the result when good intentions collide with the intransigence of the organisation. It is the process of dilution and compromise, where enthusiasm and commitment come face to face with practical politics and short term expediency. In short, satisficing is what governs decision making in companies. In television companies, satisficing is the process that results in television programmes. In the education departments of television companies it produces educational programmes.

One consequence of decisions based on notions of incrementalism, on the lowest common denominator of acceptable opinion, is that changes in thinking subsequently appear piecemeal, difficult to track and identify. Those artefacts that remain barely reflect the turmoil of their production. It requires a long-term perspective, degrees of hindsight, and an unashamed re-writing of history to analyse the processes that have led to certain styles in television production, and the routes that have been followed to reach the current, temporary positions.

The following brief account is a re-writing of some part of the history of educational broadcasting, reflecting on one company's contributions to the teaching of mathematics over the last twenty or so years. With the benefits of hindsight, this history has a coherence and a direction that was not perceptible at the time. At the time it was merely an exercise in satisficing. But that it how organisations operate.

A framework

Educational television arrived in the United Kingdom one May morning in 1957. Intriguingly, it came not from the public-service producers of the BBC but from their controlled counterparts in the independent companies, companies financed through advertising. It would be nice to claim that educational television was the consequence of lengthy and informed discussion, a rational process that pin-pointed those particular qualities of the medium that would enhance work in the classroom.

But, it was not like that. Educational television was as much a surprise to teachers as the notion that private companies would provide such a free service. It was not just the details of an advertising-funded school television that were problematic. Many teachers were openly hostile to the idea in principle.

Education in the United Kingdom had evolved around notions of autonomy, the freedom of any teacher in any school to teach what they liked – within reason. In practice this freedom was restricted by the range of syllabuses set for public examinations, but that framework was in terms of end-points rather than pathways.

Television, by contrast, had the particular advantage of sharing the same sets of images with potentially huge audiences at the same time. In this it was not obviously allied with the relative anarchy of the classroom. It is interesting that, over the last thirty years or so, teachers and pupils together have come to accept that television has something to contribute to the formal school system.

Over the years, in series after series, educational broadcasters have claimed certain abilities for their medium. Television has and will continue to bring into the geography or social science classroom dynamic images from down the road or from the other side of the world. It is the natural development of the slide or the picture in the text book.

For students of English, television offers some limited contact with the writers and dramatists behind the words. Drama productions, at their best, affect the audience, resonate with the emotions of individuals and, in turn, lead to new acts of creation.

The television camera offers access to the rare and to the dangerous – to the splendours of architecture, to endangered species filmed in loving slow-motion, or to the poisoned insides of the nuclear industry. Those juxtapositions of images, enhanced and highlighted by sounds – which are the products of the television industry – will, at their most effective, speak directly to the cognitive and emotional needs of the audience.

But, television is not always like that. In fact, educational television may not be sufficiently like that.

The demands on the producers of mathematics programmes were and continue to be contradictory. In part this may be due to the nature of the subject itself, or at least the general perception of the subject. Whilst students of humanities watched their plays or social scientists peered monocularly at distant communities, mathematics students were engaged by the new role created in broadcasting, that of the television presenter.

Televised mathematics just looked different from other educational productions. Mathematics, it was argued, was a logical construct, built upwards and outwards, a network of ideas that has to be created and developed at the proper and appropriate time within the classroom.

So, mathematics on television took that same model, postulating, proving and extending in perfect logic with all the benefits of this new, electronically assisted lecture theatre. Of course, this is a caricature but with just sufficient truth not to mislead. In educational terms, televised mathematics often appeared to subscribe to that same view of learning as the medium that supported it. Learning was a process of transmission – transmission away from the informed centre to the peripheries where knowledge was only partial.

In a way this was an obvious and superficially attractive use of television. It was a use of the medium that could be recognised as 'appropriate' by pupils and teachers alike. It may have reflected the actual day-to-day activities of many secondary school mathematics classrooms. At times when old syllabuses were being torn up and new ones substituted, television helped teachers through the cultural shocks of metrication and into the dismays of the so-called 'new mathematics'.

More recently, television has offered direct help to teachers in the primary school, struggling with the demands for more breadth and depth in their science teaching. 'Instructional' television, programmes directed at pupils but with that eavesdropping teacher audience, have and will continue to offer a regular, reliable and potentially most effective source of in-service education for teachers. Those early 'experiments' in educational broadcasting, searching for a constructive and effective role for television in the classroom, continue. But, the consequences and implications of our experiments can be partial and illusory.

It would be wrong to describe the 1970's as a time when television broadcasters looked at their reflections in the screen and resolved to do better. But it was a decade when educational broadcasting in the UK went through periods of debate and self-doubt.

At the centre was the concern about this service as a resource, for teachers to carry into the classroom just like the engaging photograph, the challenging piece of poetry or the shiny pebble found by the road-side, a resource to be used and abused at just the right time for that particular audience.

However, from the outset, that television resource required degrees of planning and preparation that were so much greater than more traditional materials. It involved bartering with colleagues to use that still rare and unpredictable machine, the video recorder.

Equally crucially, that resource came into the classroom, not as a neutral ally, but with its own baggage of opinions, attitudes and values. Television, at its worst, flung the student audiences and their needs away from the centre of the classroom to the scattered circle around the television set.

Television literature developed its own defined language. 'Follow-up' was what you did after watching the television, or, perversely, perhaps before watching. And, 'follow-up' was devised not on the agenda of the classroom and its unique needs but according to the broadcast curriculum. "What did he or she say – what did he or she mean?" – were the implicit questions that followed a television viewing.

The inside view of mathematics is one of a sequential discipline, an edifice constructed patiently from individual bricks according to some Grand Design. The mathematics curricula of the examination boards, or of the now National Curriculum in the United Kingdom, define those cross-over points in mathematics, the resting places where students and adults look back and try to tidy up their memories of the foot-steps that carried them from one to another stage of understanding.

Of course, that route into and through an area of experience, whether it is called mathematics or any of the other myriad ways into which knowledge is carved and parcelled, is followed and recalled uniquely by the individual traveller. And, it is a route that changes, drawn and re-drawn as our understandings and experiences expand. It is a construct, prone to fracture and reform.

Those experiences that are offered through the viewing of television and the interactions around the viewing of television, require enacting, require to be taken in as part of our own particular, individual way of constructing the world. "Now, have I got that right . . .", is the rhetoric of learning, the self-questioning that embeds our novel understandings. Afterwards our understandings could not be otherwise; at the time we are presented with new experiences we know that indeed they could have been otherwise.

In searching for a secure, if temporary, intellectual foothold for the production of mathematical packages, certain of these arguments seemed important at certain times over those numbers of years. The dilemma is how to put these naive insights into practice, in the context of television. Serendipity may be a more accurate description of human learning than we care to admit. But, as the basis of a school mathematics curriculum – or the proposal for a television series –, it somehow lacks a properly organised vitality.

The end-point we looked towards was a flexible use of television that put pupils with their needs and teachers with their aspirations back at the centre, and television, as one of the many resources, back to the margins. Further, we looked towards a television that offered an invitation to a range of mathematical contexts that could be entered and explored at will.

Television was not a teacher – and, truthfully, had never been one. It lacked the concern for individual needs and the ability to provide proper and appropriate practice that a classroom teacher puts to the front of a repertoire of skills.

However, television could use its powers to engage and to move, not equally across the range of activities that form a mathematical understanding but in those areas where dynamics, visual counter-point, and emotion can contribute to learning. To this end, we searched for some understanding of the television image or, more particularly, a mathematical image on television.

Images were more than just the passing pictures of the television screen. Images were those collections of pictures and sounds that appeared to possess some underlying importance, some deeper meaning, some ambiguity of meaning. Images exist, they can be observed. They are neither easy nor difficult because in our construing of images we add those elements of meaning and understanding that we each individually find satisfying. So, in mathematics, the image of an abacus counting-on rhythmically may appeal as a phenomenon that has pattern and therefore predictability. If we so wish that same image could also suggest stories about place-value, and our ways of recording numbers.

Over a period of years we tried to move from the position of television as teacher to television as an aid to learning.

The series

A summary of our activities over the last twenty years would mention the following:

1. Between 1961 and 1991, Central Television and its predecessor, ATV Network, have produced some 182 programmes in support of junior school mathematics, 48 hours of television, broadcast throughout Great Britain. These programmes have fallen into nine series, varying in length, and shown over the school year.

Each programme has been supported by a comprehensive manual for teachers, providing advance information about the series as a whole, a mathematical background, and suggestions for activities in the classroom which could be integrated with the television programmes.

The printed materials have covered some 800 pages. Most recently, this package has been complemented by suites of software, offering students an opportunity to control and extend their experiences of the screen imagery. That software can be used on a range of the more usual educational computers, including the BBC machines, as well as the more powerful Archimedes and Nimbus hardware.

2. Each series of programmes has been transmitted for three, sometimes four years. Feedback from teachers through pre-paid report cards, informal discussions at conferences and on similar occasions, together with regular classroom observation have formed the basis of a formative evaluation process which, in conjunction with the advice of curriculum experts, has guided subsequent productions.

3. The use in school of televised mathematics programmes has varied over the years in a way that is not always related to the perceived quality of the programmes. General concerns about mathematics in the classroom, the availability of commercial mathematics texts, and pressures from other parts of the curriculum which require help from television are factors which impinge on the viewing figures. But over the years, these television series have attracted annually between 16% and 24% of all primary schools, up to 6,500 schools or 10,400 individual classrooms.

4. The direct costs of all these productions, calculated at 1991 prices, but excluding overheads, would amount to around £ 8.3M.

The programmes

The earliest series, "Summing it Up" produced in 1961, "Primary Mathematics" in 1963 and "Towards Mathematics" in 1967, currently exist only as fragments of film, through their printed materials and in scraps saved from journals at the time or reports on visits to schools. From these partial records we glimpse the overall purposes of those programmes, to move the study of mathematics in the classroom from that of a "paper and pencil subject to one that has a more generous educational viewpoint".[1] In 1968, in the booklet for a new series, "Towards Mathematics", the authors observe that those earlier programmes "which made specific reference to obsolete coins" have been remade.[2] Teachers are warned that many of the programmes still use a mixture of Imperial and Metric measures.

From these chance remarks, and the details of the programmes themselves, we get a glimpse of activity that is directed towards curriculum change rather than in support of learning. Ideas about new approaches to mathematics, as a subject, are directed as much at teachers as the child audience. For children, of course, the curriculum was not new, it was just novel.

In 1975, ATV Network produced 28 new programmes in a series titled "Figure It Out". The planning of these programmes showed some intriguing differences from previous productions. Teachers were advised that "the series is not planned as a course in mathematics. Teachers and pupils will find some items more interesting and relevant than others, as they would with any magazine. Take from the programme what you would like to take from it."[3]

The style of the programme was borrowed unashamedly from those that were popular in children's television, the television that you watched in your own time at home rather than in other's time at school. The magazine style, sometimes called a 'cafeteria' where you helped yourself to what was interesting but left most behind for someone else, was an attempt to acknowledge the small proportion of time that these ephemeral images would occupy in any week of mathematical activity. The contents of the programmes included suggestions for activity and investigation, as well as stories, sketches, mime and jokes.

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[1] Handbook for "Primary Mathematics". Birmingham: ATV 1965.
[2] Handbook for "Towards Mathematics". Birmingham: ATV 1971
[3] Handbook for "Figure It Out". Birmingham: ATV 1977.

"Figure It Out" attempted to challenge and change the agenda of mathematical programmes up to that time by directing itself to the children in the audience, and appealing to their sense of imagination and innate curiosity. Then, it was argued, teachers would explore together with their children, those aspects of the programme that seemed most engaging. These activities would be enhanced or inhibited through the use of the facilities, skills, and interests in the individual classrooms, orchestrated using the teachers' knowledge and understanding of their pupils and their unique needs.

"Leapfrog", a new series of 28 programmes produced for a first transmission in 1978, was in many ways a logical and appropriate development of previous series. It was also a strikingly and provocatively different use of the medium for mathematical education. For much of the time these programmes had no supporting commentary or dialogue, simply images supported by intriguing natural or musical sounds. From week to week the programmes returned to, repeated and embellished a number of those sequences that could be seen as important in mathematical understanding.

These images were drawn from both the numerical and geometric aspects of mathematics, including the abacus, Cuisenaire rods, number lines, shapes of various sorts that translated and rotated across and around the screen, mirror images, and items photographed in the built and the natural environments. There were also stories to hear and to watch and sequences which invited contributions from the child in the classroom. Some sequences of the programme were deliberately silent.

The adults in "Leapfrog" talked mostly to each other rather than to the eavesdropping audience. In the main these 'programme guides' helped establish those minimum rules that allowed the audience access to a game that was being played or an investigation that was under way. The series remained completely open-ended throughout. It was non-didactic, almost to the point of self-effacement.

The idea of a programme where you provided much of the story yourself challenged many of the assumptions about television and its classroom use. In many cases it was not just the details of the broadcast message that required negotiation in the classroom, but the overall purposes and contexts of that message. In short, "Leapfrog" caused problems. But it caused problems to teachers rather more than to children.

In 1980 The Shell Centre for Mathematical Education at the University of Nottingham prepared a report on "Leapfrog" and its use in schools under the title "Leapfrog Observed".[4] The study was relatively informal, based on classroom observation, supported by detailed and structured interviews with teachers and children. The purpose of the study was to gather a more rounded view of the television series and its classroom use.

In particular, it was an attempt to provide some explanation for the polarisation in the reported opinions of teachers, distinguishing those large numbers who found the series to be exceedingly useful from those large numbers who found it worthless. Further, the study hoped to illuminate a range of paradoxes. Why, for example, was a series that was used with enthusiasm, as an important contributor to the initial and in-service training of teachers, rejected in its entirety by a good proportion of other teachers?

"Leapfrog Observed" is an intriguing document. For those brought up in the 'scientific' school of educational research it is also a frustrating record. In general, the research reflected our own view of an audience that was polarised. Two teachers of classes similar in age and comparable in other respects often recorded entirely contradictory opinions of the programmes and their attributes.

The simple and attractive view, that the more confident teachers of mathematics would find the programmes easier in use, was found to be not generally true. The factors that appeared to distinguish teachers were more subtle and deeply based.

One clear distinction revolved round the notions of formality and informality in the classroom. Teachers who were tolerant of ambiguity in the classroom, a learning process where they may also have something to learn, were supporters of the "Leapfrog"-style. Such teachers were not uncomfortable about questions that had no simple and immediate answer. Similarly, pupils in such classrooms were satisfied, rather than frustrated, by teachers whose response to questions was, "Let's find out . . ." Of course, the mathematically confident could be found operating within this style of classroom environment.

But, the distinction seemed to be deeper than just a curriculum confidence. At its core, the distinction was concerned with attitudes about classrooms and their organisation. It involved views about the ways that children learn, and the implications that this might have for the ethos of the classroom. A senior and respected teacher educator talked of her own observations in schools in this way:

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[4] Pimm, David; Burkhardt, Hugh: Leapfrog Observed. Comments on a mathematics television series for 7–9 year-old children. Nottingham: University of Nottingham, Shell Centre for Mathematical Education, 1980.

> "One of the most unusual and exciting features is that they have persuaded ATV (the producing company) that silence is respectable. This allows a reversal of the silent watching tradition. Here the children can talk and the presenter is silent. The timing of the production is superb in that it both invites and permits the children to answer explicit and implicit questions and then to check their responses . . .
> There is a problem particularly from teachers who first watch the programmes alone. They can't imagine doing so with children. Yet the positive reactions of teachers who tried it with children were often surprising to them."[5]

In 1981 "Leapfrog", whose school audience had by now dropped to a low of some eight and a half per cent of all primary schools, was replaced and since that time some further three series have been produced and broadcast, building on and learning from our experiences with "Leapfrog".

Those series were significantly different from "Leapfrog". There are less periods of silence. Each programme comes with a title that is a shorthand description of the range of materials that follow. ("Leapfrog" had no titles – just programme numbers.) There is more commentary and description, more introductory and summarising remarks. The audience for these new programmes has now grown to a satisfying twenty-two per cent.

Reflections

Educational communities continue to differ widely – despite the developing structures of a country-wide, National Curriculum. The goals and purposes of those developing educational materials will rarely match those of the teachers using those materials.

The nature of curriculum materials is that they often represent only a fraction of what individual teachers would like to take with them into classrooms. Authors of documents for classroom use, be they in print or on the television, write for certain places and certain times. Their intentions may overlap only in part with the intentions of particular teachers in particular classrooms. Television also brings with it its own baggage of expectations, it is not a neutral contributor to the classroom.

Television programmes are used in schools because they appeal to that group of teachers whose views overlap with those of the programme producers, at least in part. Pupils rarely get asked about their choices of programmes to watch in school. Further, teachers and significant others in the peer group, can have a powerful influence on the perception of a programme by the student audience. Teachers signal their approval or otherwise of television programmes through comments and questions, signs and gestures, and these attitudes are picked up and reflected back by pupils. Ultimately, the teacher has the final sanction of turning off the set and leaving it off.

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[5] Pimm, Burkhardt: Leapfrogs Observed, op. cit. p. 35

The more trivial observation is that the typical ways of audience measurement, as a proportion of all schools with pupils in the relevant age-range, may produce an unfairly pessimistic view of a programme and its successes. The schools audience is a segmented one, even within the same areas of curriculum and level, and programmes are, or could be, devised for one or more recognisable segments, with their unique qualities.

But the general point is more interesting than a simple quibble about audience measurement. If television offers access to mathematical ideas on the basis of investigational or problem-solving activity, or with emphasis on geometry as opposed to numerical work, or through games and puzzles, then the real measure of success is against that proportion of teachers who share at least a part of those views.

What proportion of teachers who share curriculum views with those expressed by the programme producers, also recognise their views to be embedded in the programmes themselves and to communicate effectively with the classroom audience? Of course, it would be nice if that potential audience itself constituted a fair proportion of all teachers. A small audience of enthusiasts may constitute 'success'; it may also reflect an inappropriate, self-indulgent use of a mass-medium by the programme producer.

There are other important points that could be made about the educational mass media, and particularly television. Just as the programmes themselves are ideal for some teachers in some places, and just 'satisficing' to others, so the pattern of classroom use is rich and varied. In practice, television often seems to be regarded as one of those school aids that teachers and pupils know how to use instinctively – like chalk.

Training in the use of television, as a potentially important classroom resource, rarely forms an integrated part of teacher education. More time is spent in learning how television and its associated machinery work than considering when they might best be employed. In practice, teachers vary from incessant interrupters of programmes, stopping to ask questions and to supplement the broadcast information, to those who always view programmes in their entirety.

Television, of course, is a medium that can be recorded, viewed, replayed and played again. But programmes in the main have a structure that is often better appreciated when the programme is allowed to speak for itself. Similarly, the sensitive teacher will know instinctively when a programme is best left, to return to some days later after the images have built meaning through other activities in the classroom. Some programmes demand immediate responses that continue after the final musical sounds have died away.

The audience itself has changed since those first educational broadcasts, over thirty years ago. Generations have now grown up with the experience of television as an important, even dominant, aspect of their social and cultural life outside school. Children read the television image, its shorthands and conventions, with a sophistication that was brought previously to the reading of comic strips.

Intriguingly, this sense of a sophisticated audience is not always or often reflected in many of the productions prepared for school. Whilst there are notable and important exceptions, school television itself often stands apart from productions prepared for children of the same age out of school.

The programmes are less complex, making only incidental use of modern video technology. There is less visual 'noise', less of the embellishments that dignify children's, as opposed to educational, programmes. There is an expectation by both pupils and teachers of a relative simplicity in style. School programmes not only look different, they should be different – or so it seems. In truth, no-one really knows whether 'classical' television style is most effective in presenting educational messages to children in school, or not.

The television industry, as a whole, has been built on the basis, or at least the mythology, of decisive and powerful leadership. It is not within that television culture to admit, at least publicly, those elements of uncertainty and self-doubt that trouble us all as individuals. And it is in this questioning of motives, purposes and outcomes that educational broadcasters align themselves more closely with their classroom colleagues than with those working in the media. We know some things about the strengths and weaknesses of educational broadcasting. We share stories about its role within education, in ways that are just sufficient and doubtfully satisfactory. There remain vast gaps in our understandings.

Diana Bentley, Samantha C. Bentley, Peter N. Drobinski, Mike Watts

Learners Deserve Better – Improving the Quality of Educational Television

Introduction

In the next few pages we make the simple case that educational television broadcasts fail, on the whole, to promote significant learning. From two particular studies we note that educational videos and broadcasts are commonly poorly received both in content and style – by learners. We then make some general recommendations for improvement.

Our two studies differ in terms of emphasis and audience: the first looks at the learning of adolescents within science education, the second considers video production for distance learning by adults. They are, however, united by a common concern for 'learning impact': the potential for educational television to invoke and stimulate significant learning.

Study 1

This first study (Bentley and Watts, 1987) focused on the views expressed by some seventy 14 – 16-year-olds shortly after they had used television programmes on physics and biology as part of their science lessons. The youngsters were interviewed at school in geographically widespread areas in England and Wales.

There are two themes within their responses which are important for what we have to say here. The first is that unless television programmes or videos are immediately 'grabbing' then youngsters will simply 'look without learning'. As one youngster said: "I sometimes prefer to read about things rather than watch them on television. The thing about television is that you tend to close off your mind and have it as a sort of thing to watch but not take in. If you have to read it you have actually got to put your mind to it."

That is, the learner has a veto on what she or he wants to learn and unless the learning stimulus has impact and significance he or she will 'switch off' mentally if not actually.

This youngster touches, too, on the second theme: that television and video films are (of course) in competition with many other forms of learning materials and – on the whole – often fail to make as strong an impression as do other media forms. This may seem an unusual point – we frequently think of television as having an inordinately powerful influence on children's (and adults') lives.

However, we can make a distinction between that television which is geared to evening viewing and entertainment, and that which is geared to schools and educational purposes. The first is powerful and tailored to maximum effect. But by the time producers arrive at the production of materials for schools and learning, they seem to forget (or for some reason, be unable to employ) all the well-worn techniques for creating impact and significance. It is as if they are following a belief that learning cannot (and should not) be lively and fun. The common diet for schools is (at best) of the formal, didactic, documentary type of presentation. It comes as no surprise, then, that youngsters 'veto with their head'.

Study 2

This second study (Bentley 1991) considers video as an integral part of distance learning techniques for adults. The designers of distance learning material and the producers of educational videos were interviewed for their criteria for successful production. At the same time the clients, the users of distance learning materials, were surveyed for their impressions of quality.

Needless to say, there are some important differences in these two perspectives. The producers tend to see a major lack of impact in terms of cost: there is a presumption that if money were no object, educational television products could be high quality and superbly effective. For students it is the tone and style of the material that matters. They classify some 90% of all the video material as 'impersonal','detached and neutral', 'formal' and 'academic'.

It can be argued, though, that these are just two ends of the same problem: A 'detached' and 'formal' presentation may be all that can be achieved on a limited budget where actors, in-vision presenters and interesting locations cannot be afforded. In this survey, television and video came well down the list of types of media actually used for learning:

While 35% used radio broadcasts and 40% used television broadcasts, we need to point out, that such a high percentage of courses using television broadcasts may be due to the fact that many of the respondents were students of the Open University, which uses a great deal of television. It is interesting to note, though, that 50% of respondents have used some kind of visual medium in courses at some

Figure 1. Views of students on media most frequently used for learning in distance learning packages.
(% of respondents)

Written material	100%
Telephone teaching	15%
Radio broadcasts	35%
Television broadcasts	40%
Pre-produced audio tapes	60%
Pre-produced video	10%
Practical & apparatus kit	25%
Computer software	20%
Tutorial support	90%
Residential schools	85%
Self-help groups	40%
Individual study	100%

time, be it television or preproduced video packages. It is equally interesting to note that video and television come close to the bottom of the list when students are asked to rate their effectiveness:

Figure 2. Order of effectiveness as rated by distance learning students

1st Individual study
2nd Residential schools
3rd Written materials
4th Tutorial support
5th Computer software
6th Telephone teaching
7th Self-help groups
8th Pre-produced video packages
9th Practical & apparatus kits
10th Pre-produced audio tapes
11th Radio broadcasts
12th Television broadcasts

That said, when individuals were asked to rate their preference for a **combination** of media formats for learning they seemed to want a mix of written print material with tutorial support and some visual component.

Figure 3. The top preferences of media combinations were:

1st Written materials and tutor support
2nd Written materials, video and tutor support
3rd Written materials, television broadcasts, tutor support
4th Written materials alone
5th Written materials and video
6th Written materials and audio

Perhaps here they recognize the potential of educational television and video for learning and are waiting hopefully for good quality materials to appear.

What is "good educational television and video"?

So far we have skirted notions of good and bad, and of learning impact, and yet these issues do deserve some consideration. We have developed our own thoughts on learning and schooling elsewhere (for example Bentley and Watts 1989; Watts 1991; Bentley and Watts 1991) and here we leave some descriptions to the participants in our studies.

There is no doubt that 'good' educational television has the potential to be an exciting medium for learning – every bit as powerful as everyday television. Consequently, one of the conclusions we must reach is that technical presentation for educational purposes must be every bit as good as that for 'normal' television.

Sophisticated viewing audiences will bring everyday expectations to any act of viewing and so educational television needs all the stylishness, animation, computer graphics and filming techniques we have now come to require elsewhere. Anything less will instantly and automatically devalue learning programmes in the eyes of the viewer.

However, there is another side to this issue. The programmes must not become too informal or frivolous. This, too, would devalue the material in the eyes of both teachers and learners – they need it to be suitably serious.

The language and style of presentation should be geared to particular audiences – a universal 'documentary patois' will no longer suffice. As Drobinski in Bentley (1991) said:

> "Video provides the examples you learn by; how to deal with certain circumstances by watching other people with whom you identify undertaking those self same circumstances."

This sense of identity is important. The youngsters in Study 1 wanted to see 'young people like us' presenting the material so that they could be clear that it was suitable and relevant for themselves. Similarly, relevance has to be manifest in terms of students' own lives and learning needs. If the material is only of peripheral interest and applicability then the impact is considerably lessened. The producers of material therefore must 'peg' the content and context of the subject matter squarely within the courses and programmes of study required of the learners.

Important, too, are the secondary images being generated by the material. It was clear, for instance, that the science education material watched by the 14 – 16-year-olds provided a series of supplementary images about the very nature of science, the work of scientists, the relationship between science and society, and gender roles in science. Few of these images were complimentary or desirable in the thinking of our times – much care needs to be taken to ensure that negative stereotypes are not re-enforced and endorsed by learning materials of any sort.

Above all, any learning medium must be intellectually challenging: the ideas and style of presentation must stimulate thinking and re-conceptualization in the learner. Television and video have the potential to do this vividly and with impact engaging the learning viewer in a somewhat one-sided didactic conversation.

Criteria for good television and video

In this final section we offer some advice for programme makers and producers; some of which is common sense. For instance:

1. Most subjects lend themselves to learning by videos – those that are visually stimulating are the best. In particular, video is good for demonstration of techniques and for bringing experiences to the student.
2. Video is a linear process, so it cannot be presented like a book. Written materials are needed to support a video. That said, video can put across a great deal of complicated information in a short space of time, and can include relevant detail.
3. Video can present information from different angles, in a more interesting form. Consequently, video for learning needs to be well produced – as much like a commercial programme for general entertainment as is possible.
4. Television and video must tie in with other media and learning experiences being used on a course.
5. To take account of its weaknesses, video needs to be sectionalised to give individual students control over the viewing process, and make it more flexible.

6. Video must be able to present material in a better way than any other medium, otherwise the cost of its production is not justified and it is not beneficial to the student.
7. Production courses which reflect conventional systems of learning are popular and can be effective, and it must be remembered that individual study is necessary.
8. The tone of the materials needs to maximise impact and relevance while staying formal and academic – too much informality makes the course seem less serious and beneficial.

Conclusions

Both studies emphasise one important feature of educational television, which is that, too often, learning support in the form of video or television material is seen as an add-on which is non-essential. Television is rarely treated as a serious medium for learning in its own right. Views that television should be used to do what television does best – present only those ideas which can be best presented through a visual medium – miss, it seems to us, the heart of the debate.

We would wish to counter that argument. Surely the debate should begin with the power of learning. What is it that educational television can promote best in **learning**: is it understanding other's viewpoints – or using the power to astound or shock to help learners remember and understand?

All of these and more. Using a model of learning which has a visual medium and the individual needs of the learner as its core will result in educational television which is of high **quality** and highly **valued**, instead of an adjunct to more 'serious' focus of learning.

Many teachers and students in both studies felt that they had only learnt from a television production if they made notes in writing. Indeed, some teachers encouraged students to do this whenever they used educational television. The youngster we quoted at the beginning implied that watching television was in some way easier than reading – somewhat of a less active process, that involved less work.

Teachers and producers need to positively promote the values of learning from educational television, rather than seeing it as a support for other more important media. We feel this attitude and approach to learning misses the central point. Learning can take place through a visual medium, – it can be challenging and you can be put in a position where you have to 'put your mind to it' just as much as reading or writing, if it is constructed from a model of learning which treats it as a serious learning tool.

Similarly, learning, through whatever medium, can be enjoyable – it does not have to be difficult or hard work to learn something. Teachers seem to have been taken in as much as students in assuming that because the medium of television can be used for entertainment, so all use of the medium must have entertainment as its primary aim – learning and understanding cannot be compatible with this. We would disagree.

Television is a powerful medium for learning, not simply a medium of entertainment. Producers and teachers need to re-examine their attitudes to what learning is or can be, and see the value that well-constructed educational productions can give to such a model of learning. Television does not need to be an add-on It can stand alone in the world of learning without need for support.

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Kirsti Tulonen-Seppänen

"Who Am I?" – Helping to Understand Human Beings

"I thought the programme was funny and it taught us a lot. If we had not watched it we would not know much about humans.

The reproduction of humans was well acted. The skeleton looked sweet. It was a good thing to show some pupils, but the teacher's weird slippers were a bit annoying.

I think I'll remember the things that I learnt. I would like to give a big thankyou to the programme-makers and wish you would make more episodes for the series."

This letter was written by an 11-year-old after watching at school a seven-part series about humans entitled "Who Am I?". We received many similar letters about the programme – in fact many more than about any other school television programme. The series was also judged the best children's programme in the Japan Prize Competition 1989, where it won The Ministry of Post and Telecommunications Prize. It appears, therefore, that the goals we had set for ourselves were achieved.

The goals

The main objective of the series was to show how a human is a biological being, and what makes us humans human. We tried to open up a wide perspective through which children approaching adolescence could view themselves as part of the human species. The series describes humans as products of biological and cultural evolution.

Our junior school curriculum does not require such comprehensive treatment of the human theme. It is true that the anatomy and physiology of the human are advised to be taught in biology, some aspects of human behaviour are discussed during history lessons, but an adolescent who is gradually waking up to a deeper understanding of him- or herself does not, at school, find answers to the many questions in his or her mind. "Who Am I?" is the first of those questions.

By producing the series we wanted to bring this viewpoint into the curriculum discussion. Could things be taught as comprehensive entities instead of breaking them up into small details within other school subjects?

Another objective of the programme was to influence teaching methods and to show new didactic models. The things we wanted to teach were embedded into a loosely constructed story frame. A certain class studied the human being during a seven week period – in seven 30-minute programmes. The class followed models of comprehensive project work, pedagogic methods that are only now making their début in the Finnish classroom.

A 50-page Teachers' Guide was produced to support teachers. It contained both factual articles and suggestions for practical work in the classroom.

The methods used

The story line, which was already known in Aristotle's time or earlier and which has since then been established as the standard model for an American movie, is also principally suitable as a basis for teaching programmes. The beginning - middle - end pattern creates the need in the viewer to find out what happens next, to anticipate the end.

After discovering that Aesop was right about how useful a tool the story (or play) is in the hands of an educator, I have tried, in many previous productions of mine, to use the same resources as many successful authors of television series and advertisements. However, the line of a story bends uneasily into an educational programme. The inner logic of the subjects to be taught and the story often move in different directions. If the author allows the plot of the story to lead him or her along unpredictable paths, the subject matter may well get buried under the clutter of irrelevancies.

I wrote the script of "Who Am I?" in a story form, but also in the case of this script, I had to abandon the idea of a strong story line. We were content to follow the life of a school class which, during the seven weekly episodes, started the study of the human theme.

The pupils were selected from a certain school on the basis that the class should contain all the "basic types" present in an ordinary classroom: the fatso, the book-worm, the princess, the slob and so on. The roles were scripted (in the third draft) so that nobody had to play anyone but themselves. There was no improvisation during filming, the pupils said their lines exactly as written. I was careful not to let the pupils have the script – they got their instructions only verbally.

The filming took seven weeks and was done in the afternoons at the pupils' own school – in a classroom which was light- and sound proof like a usable studio, and staged as a model classroom. The scenes were filmed onto two tapes in order to avoid any tiring retakes. We tried, therefore, to organise the filming in a way that was most natural for the children.

The solution worked. Our audience accepted the goings-on in the classroom as real. (Many viewers have even thought that we tried to document the activity of a real classroom). We can confidently conclude from the feedback that the 11-year-old viewers were able to identify with the television personalities of their own age. What happened to a pupil in the television class, also happened to a viewer. As the series progressed, the personalities became familiar and important. The audience even founded a fan-club for Jussi, the hero of the series.

It is clear that the children preferred to see students of their own age in situations which were totally familiar and important to them. However, showing just a mirror image is not enough. In order to captivate and to be "larger than life", a television programme has to detach itself from everyday reality. A television programme has to make the invisible visible, the impossible possible. This task was given to a demonstration skeleton which stood in the corner of the classroom.

A skeleton is, of course, a clear symbol of a human, but at the same time it spanned the whole length of the programme, always repeating the learning messages with its bony mouth. Yet the role of a teacher obviously required it to be particularly captivating.

We had to give the skeleton a character and a lifestyle of its own. The scriptwriter had to know even the most intimate thoughts of the skeleton. We learned that the skeleton had a most interesting past. A diary found in a secret hiding place seems to give him a lot of pleasure during the lonely hours of the night.

The scene that seemed to be most popular with the viewers was the one where the skeleton watched old horror movies on a school video machine. We also follow him to the natural history museum's evolution department where he sometimes visits an old colleague, the demonstration skeleton of the museum.

The situation almost got out of hand during scriptwriting. The skeleton started to live his own life so strongly that I had real difficulty in keeping his scenes short. During the actual production phase, when the heavy life-sized marionette skeleton had to be made to dance in the studio, I was finally glad that I had not given the main role to the skeleton. Special effects require a vast amount of work; after a sweaty day-long session, all we had to show was a 3-minute long skeleton dance.

Considerations

Using television as a teaching medium has its limitations. A movie moves chronologically at its own space. The process of teaching is one-directional. The viewer can easily misunderstand the messages given in a play. He can concentrate on trivia or just miss the point. It is not, therefore, useful to harness television into all teaching. Taking in fact-based information is easier through other methods; hands-on experiments and practice teach one more than watching movies.

However, television programmes and story-telling undoubtedly have a place in education. If the teacher wants to appeal to the children's emotions, if he or she wants to influence attitudes and motivation, he is often helped by a film.

The series "Who Am I?" wanted to motivate students and teachers to explore learning, it tried to show new learning models, but above all, it tried to bring pleasure into the process of learning.

A child's play – his learning to live – is accompanied by many a whole spectrum of strong emotions: happiness, curiosity, surprise, tension, threat, fear, hate, pride and so on. In the Finnish school tradition, learning is understood to be a serious and matter-of-fact project. The range of emotions in the Finnish classroom is fairly narrow: the misery and anxiety of a struggle is relieved by the quiet satisfaction of a task completed.

However, the classroom windows are today being opened up to the unpredictable and surprising joy of learning. I wanted to be part of that progress.

Nevertheless, I, a typical melancholic Finnish Lutheran, immediately confess to my insecurity. Do my programmes only bring superficial joy? Are my viewers only licking the sugar off the top of the cake? Is the pleasure and learning only in the funny dance of a skeleton?

It is questions like these that we, makers of educational programmes, have had to think about ever since the triumphant procession of "Sesame Street" about twenty years ago. We have to consider how low we should stoop when we try to woo our audiences. If our child viewers get used to entertainment programmes even at school, how can they ever learn to choose anything more difficult.

Or should we think that by teaching children to watch boring programmes they will learn to watch dry, factual programmes as adults? Maybe we simply cannot make programmes that are interesting enough. Maybe we lack the self-confidence and vigour to demand enough resources for our own particular methods so that we could produce television teaching at full volume. Who knows?

Jan Zwiers

"News from Nature" – Nature Studies in the Primary School

Formal criteria

Article 9 of the Dutch Primary Education Act reads: "In the Primary School 'Nature', incorporating 'Biology', must be a focus of attention" in primary school teaching. This is not a striking innovation, as in the former kindergarten and elementary school children were supposed to be instructed in the subjects 'Knowledge of Nature', 'Biology' and 'Physics'. Unfortunately, 'Nature Education' lessons often degenerated into lessons in vocabulary.

The recently developed syllabus and new conception of the subject make it unavoidable that 'Nature Education' should deal with tangible objects and living organisms. With the application of a more scientific approach, the relevant material would be observed, discussed and investigated in the classroom. In the everyday classroom situation however it seems that little has changed: the 'vocabulary lesson' approach is still wide-spread. This has been traced to a number of causes:

- The teacher realises that he or she does not possess the relevant knowledge.
- It requires extra organisation to collect both the objects and the resource materials, especially for outside activities.

To remedy the situation, all kinds of forms of support at local, regional and national level are now offered to teachers.

Starting points

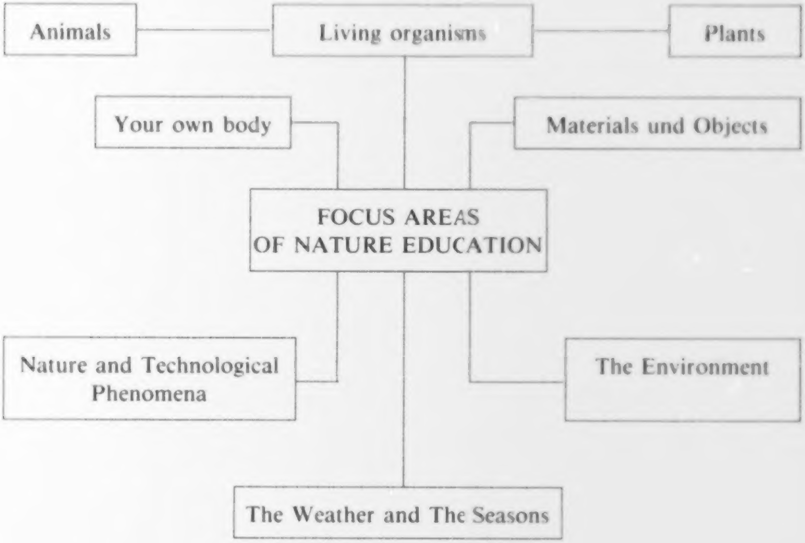
'Nature Education' is not just aimed at the study of plants and animals, as was formerly the case in the subject 'Nature Knowledge'. Neither is it about magnets and communicating tubes, which are topics of Physics. The new subject 'Nature Education' will have to deal with the totality of both living nature and inanimate nature and will have to be supplemented by particular elements from (physical) geography, astronomy, etc.

Not only new content is being introduced, but also a new approach. Discovery learning and trying to find answers to problems posed by children perform a pivotal role in Nature Education. In short, Nature Education must involve active pupil participation, it must become a "doing subject".

The starting points of Nature Education may be summed up as follows:

- Nature Education has a close relationship with the world of children.
- Nature Education has direct links with the real world.
- Nature Education is a subject for learning by doing.
- Nature Education is **one single** subject.

A number of topics emerges from these starting points:


Animals
Living organisms
Plants
Your own body
Materials und Objects
FOCUS AREAS OF NATURE EDUCATION
Nature and Technological Phenomena
The Environment
The Weather and The Seasons

Children take an interest in the many things they come into contact with. We have to supply them with explanations of their environment by talking about the subject, by perusing and exploring it. Children have to learn to observe, to carefully manipulate natural objects and by doing so, discover relationships in nature. The use of **living materials** is essential: **activities** must have priority over passing on knowledge. The way children deal with nature will eventually determine what they learn from it.

Often children can get stuck in the listen-and-look stage and do not get the chance to go through the talk, peruse and explore stages. Children cannot experience nature solely by reading a book. Nature itself has to be experienced and discovered by their exploring it.

When planning our programmes for Nature Education, we have to bear in mind that the school is also an important target audience for Nature-cum-Environment Education (NCEE), which is Nature Education provided by non-school organisations. There is basically no distinction to be made between NCEE and Nature Education. In NCEE there is an emphasis on the work of the Educational Environment Centres, i.e. on activities which often have a place in education already. The two approaches overlap: NCEE cannot be restricted to extra-curricular and Nature Education solely to curricular activities.

There are a number of reasons why the school is often selected as a particular target audience, e.g. the structure of primary education is such that both pupils and teachers can easily be contacted. NCEE's development has been based on some fundamental points:

- Activities focus on the (school) neighbourhood.
- The teacher has an important role in all activities. (Teachers will soon become familiar with the activities as a result of direct participation.)
- The pupils usually work in groups.
- Drawing plays an important part in observation.
- The emphasis is, when possible, on practical materials and living matter.

In NCEE the so-called Learning Results are not termed "Focus Areas" but are sub-divided into five "Domains" with specified objectives: People (also relating to Health Education); Plants and Animals; Materials and Phenomena from Nature and Technology; The Environment; Essential Skills.

Thus, when producing programmes we always have to think of two target audiences: the four-to-twelve year-old pupils and the teachers. However, making pupils aware of the interdependency of nature and the environment it needs much more than one or two lessons per year. It is also not just a question of simply talking about it to children, it is important to remember that children become more deeply involved if they get some fun out of exploration and discovery. Only if we can make them fully understand how interdependent the world of people, plants, animals and objects is, a truly responsible management of our biosphere can be expected from them in the future.

"Nieuws uit de natuur" (News From Nature)

"Nieuws uit de natuur" (news from nature) is not a series but a magazine aimed at the pupils in the 8 – 9 age-group. Per school year there are 30 broadcasts of about twenty minutes each. In every programme the children see a **topical item**, an **interlude** (usually a song) and a **theme**.

Each programme is repeated in the week after the first broadcast. In the work sheets the themes are presented again. The topical item is determined on the Monday before the broadcast on Friday. The interlude and the theme have been planned long before. Via the theme a connection is made, whenever possible, with desirable developments in Nature Education.

This innovative idea should gradually link up with the (viewing) behaviour of the teachers. Many teachers consider the series to be a valid curriculum replacement, however it is often thought to be convenient to merely "consume" it.

Hence a number of changes are being introduced, slowly and with an eye on the ratings. The themes from the five "Domains" of Nature Education have been chosen. In the programme children are seen working and exploring – as models for the pupils viewing. The pupils are invited to act similarly, to follow the "Do" instructions in the texts or worksheets. The Teachers' Guide developed for the series contains more information and more worksheets.

Unfortunately, the link with the programmes of other groups is weak. The influence of a programme like this is significant: about 5,000 of the 8,000 Dutch schools watch the series! Evidently, television can play a big role in innovating Nature Education.

Philip Grosset

Let the Children Make the Programmes! Health Education for 8 – 12-year-olds[1]

"Good Health" is only one of the series of health education programmes produced for different ages by three different ITV companies. The series came into being with the assistance of Mr. Trefor Williams, who was the director of the very successful Health Education: 5 – 13 Project of the Schools Council, a government-sponsored body set up to stimulate new ideas about the curriculum and examinations in England and Wales.

Before beginning work as director of the Schools Council Project in 1973, Trefor Williams was well-known for his work at St. Osyth's College, Clacton-on-Sea, where he was responsible for some very influential work in health education in teacher training. He saw health education in the primary school as very much a child-centred activity, with the emphasis on pupils either making decisions or at least being prepared for decisions that they will have to make later on in life.

Just before he began work as director of the Project in 1973, Trefor Williams agreed to act as adviser for a health education TV series for 8 – 12-year-olds to be produced by ATV, one of the U.K.'s independent television companies that later became Central TV. Our interest in health education at ATV had been aroused when the company's Education Officer and I were visiting a primary school to see how one of our series on quite another subject was being received. During the morning break, we were approached by the deputy head who said that he knew there were sex education programmes on television – but why weren't there programmes about other parts of the body too?

Subsequent enquiries suggested to us that there was a general shortage of health education material, and, when we met Trefor Williams, we agreed with him that there was a real contribution television might be able to make. Television is not a very effective communicator of detailed factual information for schoolchildren because there is no way we can get the pace right for everybody in a heterogeneous audience of different ages, interests, experiences and ability levels. What television can do is stimulate interest – even excitement.

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[1] This article is an abridged version of a paper presented at the international conference on Health Education by Television and Radio, Munich 1980. It is a reprint from the conference readings published under the same title (Meyer, 1981).

So we were encouraged by Williams' emphasis on decision-making and relieved that we would not be expected to provide solid chunks of biological information. Indeed, we could concentrate on everyday situations with which children were familiar and could make the maximum use of children's own investigations and dramatizations. All this indicated the use of film rather than studio and could obviously provide us with interesting and rewarding subjects.

Every teacher, argued Williams, could and should be a teacher of health education. You did not require a specialized biological background. So what he tried to do, both in the Schools Council books for teachers and in the briefer teachers' notes that accompanied our series, was to provide practical help in the form of back-up information and suggestions that would give teachers confidence to tackle what would, for some of them at least, be a new subject.

For those teachers who claimed to be doing health education already, he set out to provide a comprehensive framework on which they could build. This was necessary because, as his team discovered when they visited schools, although teachers often claimed that they were doing health education, this was often done on a very haphazard basis; it was largely a matter of luck whether any individual child ever got a lesson on, say, care of the teeth or safety. And there were many other aspects of health education that were quite neglected.

With our encouragement, Williams prepared a synopsis of ten possible 15-minute films so that we could submit it for approval, first to our company's educational advisory committe and, at that time, to the Schools Committee of the Independent Television Authority, the predecessor of today's Independent Television Commission.

The ten subjects suggested were: growing up, eating sensibly, teeth, germs, safety, exercise and rest, hobbies, smoking, public health services, and personal relationships. In subsequent years we added another four films: programmes about a handicapped child, feet, the work of a nurse, and preparation for adolescence.

This last title was intended to give teachers confidence to go on to tackle one of the sex education series offered by both ITV and BBC which were then still only used in very much a minority of schools. So although we showed the physical changes of adolescence by means of drawings, we put the emphasis on the social and emotional changes at adolescence, and there was no mention of sexual intercourse or indeed menstruation as we were well aware that many teachers would not be happy in dealing with such subjects.

In practice we found this a wise decision, as although some schools still omit this one programme, others have found that earlier programmes in the series have accustomed children to talk about themselves and their feelings in a reasonable and open way. And some schools have, as we hoped, actually used our programmes as a lead-in to subsequent sex education.

It was in Autumn 1974 that we transmitted the first "Good Health" programmes. The immediate reaction from schools – as indeed from health education officers who had previewed them – was encouraging. We knew this not only from our own visits to schools and meetings with teachers, but from the reply-paid report cards we received direct from viewing schools.

A typical card read: "The class found the programme interesting and all were eager to contribute to the discussion afterwards. This was the first time they had been involved with health education and they were very interested." Another card read: "The children enjoyed the programme because it related to them." This last point is particularly interesting because I think it provides the key to understanding the success of health education in the primary school: its immediate relevance to children's own lives.

When visiting schools, we found it exciting and rewarding to see the wealth of work in "All About Me" folders, as suggested by Trefor Williams in our teachers' notes, and to see the obvious interest and pride shown by the children in what they were doing. And children really seemed to enjoy the programmes, too. As one teacher reported: "It's quite unlike any other schools programme that they see."

This difference is, I think, mainly due to the very large part that children play in all our films. Films like "Talking Feet", for example, are entirely enacted by schoolchildren. This particular programme was produced in co-operation with 9, 10 and 11-year-old children at a school drama club and it was at their suggestion that the commentary was delivered by two pairs of talking feet. It was this film that went on to win a prize from the British Academy of Film and Television Arts as the best schools programme of its year, and that was really a tribute to the imagination and enthusiasm of the children concerned.

Many of our films are either open-ended (leaving viewers to discuss what they think could/should happen next) or end with a situation that we would like pupils and teachers to go on to discuss. We are very conscious that the effect of any television film, by itself, is likely to be minimal, but when the film is used as just one part (often the opening stimulus) of a coherent health education programme, backed up by other materials, its potential is vastly increased.

This is why our close links with the Schools Council Project: Health Education 5 – 13 are so important – indeed vital for us. Our films were on the air and being watched by about a quarter of our target age-group before the Schools Council teachers' materials were published, and they helped, we hope, prepare the way for them. There are cross references between the Schools Council's "Think Well" materials for teachers and our teachers' booklet; and in 1980, Nelson, the publishers of the Schools Council materials, also began publishing four pupils' books, of which Trefor Williams was co-author, that took the title of our series "Good Health" and provided a complete course in junior school health education.

These, too, contain reference to our TV programmes which, incidentally, are also available on 16 mm film for sale or hire, or on video-cassette for sale only, from Rank Film Library. I am glad to say that many health authorities seem to have bought their own copies. Information on all this inter-connected material has been available not only from ATV, the television company, and Nelson, the book publishers, but through the full-time disseminators to the Project who have provided a continuing back-up service since the Project itself came to an end.

Strangely enough, one of our most successful programmes has been about one of the most difficult subjects we had to tackle: nutrition. This raised problems. Apart from the fact that proteins, fats and carbohydrates are complicated and not always very rewarding for children to understand, there is the added complication that the experts not only offer advice that contradicts that which they were previously offering (is milk good for you, or isn't it?), but contradicts that which other experts are currently offering.

This is where innocents like television companies turn to their adviser for help, and Williams' advice was to concentrate on just one simple message: too much sugar and too many fats are bad for you. The approach he suggested was to let some children make an old-style melodrama, complete with captions like the old silent films, centered around a mad scientist called Dr. Sweet Tooth who invents a strange powder that makes people eat nothing but sweet foods. He tries out the powder on some children who manage to escape his clutches, and they end up by giving him a lesson in simple nutrition. And you can't get a more boring punishment than that, can you?

In practice, all that survived from that suggestion was the name Dr. Sweet Tooth. Our writer took the aim and the spirit behind this story, and ended up with an entirely different story about a notorious criminal, "Dr. Sweet Tooth", who is wanted by the police in connection with getting children "hooked" on sugar, and who runs a snack bar where children are encouraged to eat sugary foods between meals. He is tracked down by smart detective work and brought to trial. Eventually, after being found guilty and sentenced to "ten years of school dinners" he makes an extraordinary escape. Watch out for him, viewers are warned, or he'll harm your health, too. This also was acted entirely by schoolchildren.

It would be interesting to do some research into the long-term effects of a programme like this. The snag is that it will be 40 or 50 years or so before we can measure its long-term effect on our young audiences, and it is hard to find researchers who can be sure of lasting that long! And even if this could be done, the truth, as I have suggested earlier, is that the effectiveness of such a film depends less on us than on the teacher and what he/she does with it. So, even if we could research the consequences, we would be measuring the effect of the teacher rather than that of the film.

In this case, we followed our adviser's intention and not his particular treatment. More often, his suggestions could be filmed more or less as they stood, although we always found it paid to listen to children's own ideas, particularly when we wanted them to re-enact real life situations, such as arguing about when to go to bed or reacting to a new girl at school. Although in "Dr. Sweet Tooth" we used children to enact a script that was already written, we usually preferred to work out the scripts with the children and so involve them much more in the actual production.

In "Talking Feet", for example, we discussed with the children the points our adviser wanted made, and then they improvised and developed dramatic sketches of their own. Most of these turned out to be about the disadvantages of having smelly feet (one of them showed Cinderella at the ball when her slipper fell off – and everybody fainted!) and were not used, as this was not one of the points that Williams wanted made!

But there was also an amusing episode about a girl forcing her mother to buy her unsuitable but supposedly fashionable shoes, and a suggestion that the feet of all the children in the school might go on strike because they were not properly looked after. Both of these found their way into the finished script. They were not ideas that would necessarily have occurred to us, so we have found everything to be said for involving children as fully as possible. Viewers, too, welcome this involvement As one teacher reported: "The children almost present the programmes and are not merely the passive subjects of them."

Postscript

The above article was written in 1980 and reflects the situation at that time. Since then, ATV has become Central Independent Television and all the "Good Health" programmes have been re-made (sometimes, several times). New subjects have been introduced. too, notably in the area of personal relationships (including "The Trouble With Tom", a prizewinning programme about bullying, and three programmes about children with different sorts of disability including mental handicap). However, the emphasis is still very much on the active participation of children. So the drama "Dr. Sweet Tooth" has been replaced by another drama, "The Healthy Eating Sensation", but both were presented entirely by children. A new programme on smoking, or rather on *not* smoking is "Smoke Busters" now in production (1991) in which children belonging to a national registered charity of this name, help present a pop-style video to help others understand the health risks involved.

The same emphasis on child involvement is also to be found in "Choices", a personal and social development series for 12 – 14-year-olds that we introduced in 1986. One of these programmes encouraged a group of girls from a local comprehensive school to develop their own ideas about what would happen in everyday life if gender roles were reversed, and then used them as script writers, actors and interviewers throughout. The resulting programme, "Who'd be a Woman?" was awarded the Nike Prize by the European Commission in 1990 as the best young people's programme about the role of women in society.

Another of our series, "Talk, Write and Read . . .", English for 7 – 9 year-olds, includes a new programme called "Media: KTV", a media studies programme in which children present their own version of the sort of programme they think would be popular with children on an imaginary new channel, KTV (Kids' TV). Then, right at the end of the programme, which takes off all the common ingredients of popular English children's programmes (presenters, puppets, knock-about humour, a tank of "gunge"), one of the child presenters asks: "Do you think we should have done it like that? How else could we have done it?" So it is not just child participation in the programme that matters – it's also their participation afterwards.

Paul Bottelberghs

Children in School Television Programmes

The presence of children in school television programmes

Children in school television programmes: this astonishingly complex subject does not provide many ready solutions, however, I am more and more firmly convinced that it is a key problem determining our relationship with the public, our view of education in general, and the role of television.

The nature of children's collaboration ranges from demonstrating of daily behaviour to assuming the role of a professional actor or actress.

Children on-screen often serve as examples for the viewers, as in programmes made to show how one can work in the classroom while using programmes: In "Handle with Care", a coproduction involving seven countries, based on the exchange of packages by post among primary schools all over Europe, children with the assistance of a producer actually create the run of the programme themselves, e.g. a Swedish school receives a package from Finland and returns the favour by producing a play.

Children can also act as presenters or co-presenters, e.g. in "Sei kein Frosch", a programme on ecology from the German Südwestfunk (ARD/SWF), or they interview people such as the President of the Republic or the Prime Minister as in CNDP's "Les Institutions Françaises: les Grands Personnages de l'Etat" (The French institutions: the prominent state figures).

They may be filmed by adults while playing roles that they have set for themselves. In "Zigzag" (BBC), for example, the children make up their own story after seeing a programme on ant life. In "Choices: Who'd be a Woman?" (Central Television (IJKIB/CEN)), young girls discuss the status of women.

Children may also take charge of the camera, in addition to producing the programme: Bayerischer Rundfunk (ARD/BR) organized a competition in schools for the production of video programmes on the theme "Die Heimat" (The homeland) where immigrant children took also part. Similarly, Westdeutscher Rundfunk (ARD/WDR) promotes and encourages pupils' productions in the series "Schüler machen Filme" that frequently shows them as actors.

Children are often actors in adult productions. Either the framework is set by adults, while children play no role other than their own: In "Op zoek naar je eigen verhaal" from NOS/NOT children embark on an imaginary boat in search of their own history (the children are all Dutch, but from different cultural backgrounds). Or children become truly professional actors, playing roles written and produced by adults, as in "AIDS in der Schule" (AIDS in School), a beautiful film by the Bayerischer Rundfunk, where the major role is played by a young boy who already has all the qualities of a true actor.

The value of children in programmes for teaching

Children are still in the minority in school television programmes. Many producers still hesitate to employ them, for practical reasons and because of certain principles.

There are no hard and fast answers to the question of whether children like to see other children on the screen and if affirmative, for which reasons. Scientific studies on this subject are unfortunately rare. Any answer must vary from one programme to another, depending on criteria such as:

- the programme's intention (e.g. pure knowledge transfer or attitude-changing material);
- the age of the target group;
- the content of the information to be transmitted;
- the programme's format (a story, a report, etc).

Research in teaching so far has "proved" that sometimes it was better for the teacher to be older than the student, and sometimes the reverse. The contradiction arises from the fact that, besides age, there are many other factors that play a role in this extremely complicated process called teaching: individual personalities, social position, race, etc.

In general, we agree that children up to the age of ten assimilate teaching better from adults. From ten on, and particularly from the age of puberty, we believe that they learn better what other children pass on, although there the teaching aim is the decisive factor. The teaching of rational knowledge is carried out more efficiently through someone with authority, often an adult, while communicating emotional material or changing attitudes necessitates an emotional identification, most often the result of contact with a peer.

Colleagues' letters nearly always explain the presence of children in programmes by the desire to help the child viewer identify with the programme, which encourages imitation and learning.

Studies have differentiated between "similarity identification" and "wishful identification". There is a shadowy area between the two, a dialectical area. Identification functions best when there are slight differences in level between oneself and the person with whom we wish to identify, but the difference must not be too great or it will function like a "rubber band that breaks", and the identification will become negative. This view is confirmed by nearly all research studies.

Children identify best with other children who are slightly older and who are very stimulating and motivating at the time in life when they tend to reject the attitudes of the adult world. What is very important is that "the elasticity of the rubber band" should exist not only with regard to the role model's age, but also with regard to his situation.

Positive identification takes place in two instances: either when the role model finds himself in real situations, or situations understood as such, or when he is in imaginary situations, taking part in a story. If however the situation is too unusual, the elastic can break, as has happened with some child stars in France, and the public rejects the role model on account of negative identification.

With regard to content, adult teachers have a lot of authority on the strictly rational level (purely cognitive matter), but their status is much weaker than that of parents or other children when it comes to the emotional level (when solving emotional problems or adopting attitudes). Even in the case of the exact sciences we can ask ourselves if a strict positivist approach is desirable, especially with the youngest children. Is it really possible to teach without any emotional link?

The structure of all stories is narrative; we have recourse to fiction as a means of safeguarding a positive identification resulting from truly different, but not too different, levels. Telling a story also helps structure information: dramatization helps capture the attention and facilitates the introduction to a subject from different angles, both cognitive and emotional. Showing a fictional story makes it easier to realize that television is not reality, which at the same time paves the way for educating by the media.

In conclusion, there certainly can be advantages for teaching in having children on television, and this can have a positive effect,

- if we want to deal with the subject-matter other than in a purely cognitive way;
- if, owing to the subject-matter, the public's identifying is of primary importance;
- if we want to prevent the identification becoming negative, by working in a global context and with a narrative structure.

Obviously the use of a child in school television programmes is **not an aim in itself;** there must be precise reasons for the role not being played by an adult. Moreover, the child must not be forced to take on a role for which he or she is not suited:

he or she would then be a circus animal and positive identification would give way to rejection.

"TV Tam Tam" – A case study from BRT

"TV Tam Tam" is a monthly news programme for children aged ten to 12. The main roles are adopted by a dozen or so children from eight to 14 living in a world of fantasy, of pictures and sounds, i.e. the inside of a television set. Within this framework, each programme tells a very simple story: the children are confronted with a problem and try to solve it. They thus become acquainted with people or situations that teach them things.

The fact that children play the principal role permits identification on the part of the young viewers. The narrative structure makes it possible to look at the subject-matter from different viewpoints, and the televisual language appeals to feelings and paves the way for educating via the media. The cognitive information is always furnished by adults, who provide the children with explanations. It is the latter who ask the questions, and the adults' replies must not become too complex.

All the scenes in which the children appear are prepared with their help. They suggest subject-matter for the programmes, and it is with them that the draft scenario is prepared.

The press reaction to "TV Tam Tam" was very positive, even if some journalists wondered whether the programme was not too formalistic, or "too good" to be used for teaching, i.e. whether the children really learned something.

We carried out a study on "TV Tam Tam" in collaboration with the Free University of Brussels, using a sample of 450 pupils from 30 primary schools scattered throughout the country. What we wanted to know was: How did the pupils react while the programmes were being shown? What were their reactions following the screenings?

- Altogether 95% found it positive and even very important that the principal role be given to a child, as it proved that they were being taken seriously.
- The young viewers do not identify right away with the main character, but with the one playing the role that they themselves would like to play.
- The boys identify most often with boys, and girls with girls.
- The hypothesis of identification with older characters is confirmed.
- Children of immigrants do not identify more with a young immigrant actor than other children do.
- There was enthusiasm for the humorous and action scenes. The scenes that the children would like to play themselves, however, do not depend on the content but on the character with which they identify.

The children's replies surprised us. The programme was tremendously popular: 80% gave it eight points out of ten; 90% wanted to watch it regularly; 65% felt it was different from traditional schools programmes. Even so, they considered it primarily a teaching programme. 73% and 86% felt that they had learned something from the programme. The children that reacted the most favourably to this form of visual communication were those who were the most struck by the programme's teaching content.

The children's attitude was therefore the exact opposite of the adults'. The journalists found that the programme was well-made, but that its teaching content was of secondary importance, while, in the children's opinion, it was indeed a well-presented teaching programme. Adults hesitate to commend the teaching content of a programme, not because it does not exist, but because they fail to discern what it is.

Eleri Wyn Lewis

"Parablu" – First Steps in Welsh Language Teaching and Learning

HTV is the Independent Television contractor for Wales and the West of England and is one of the 15 companies operating under the ITV Network in Britain. HTV Cymru Wales makes programmes in both English and Welsh to serve the needs of Wales; it also makes programmes for the ITV Network and for Channel Four. In Wales, during the average week the viewing figures reach 85 per cent.

Within HTV Cymru Wales there is a flourishing Education Department which is responsible for research, formulating programme proposals, commissioning, publishing and marketing programme support material in the form of multi-media packages and running courses for teachers.

In terms of educational broadcasting, HTV Cymru Wales is required to produce programmes for schools which address the specific needs of the curriculum in Wales.

The series "Parablu" was produced in close association with the framework and methodology of the National Language Programme sponsored by the Welsh Office. Based on the outcome of detailed research conducted in every county in Wales[1], "Parablu" produced by HTV was considered to be one of the most important developments for teaching Welsh in the National Curriculum in Wales.

"Parablu" was first broadcast in September 1990 to meet the National Curriculum requirements for Welsh Second Language in infant schools throughout Wales. It is an innovative and a highly successful series of 48 graded programmes which makes the learning of Welsh as a second language a natural, lively, painless and a pleasurable experience for young children.

The language framework for the programme is based on the model developed by J.A. Van Ek for the Council of Europe which is derived from the analyses of verbal behaviour. In this model there are two components, those of language functions and notions. "Parablu" was merely a vehicle which carried the language framework by presenting children with situations where they would see and hear the language functions they themselves would have to be able to perform, and with the notions they would have to handle while learning the language.

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[1] S. Elery W. Lewis' report on "Parablu" – The Pilot Study of The Programmes and the Support Material, this volume, pp. 556 – 566.

Each programme in the series was therefore individually designed to incorporate the following functions and notions:

- the characterisation of the type of language-contacts;
- the language activities children would be engaged in;
- the setting and situations in which they would use the language;
- the different roles they would play;
- subjects and topics they would deal with;
- activities associated with the above.

Four major language functions were incorporated into the series:

1. Socialising; 2. Getting to know you; 3. Imparting information; 4. Expressing an opinion.

To achieve the main objectives, the "Parablu" theme was designed:

- to use the language through cross-curricular activities;
- to use the language in fantasy and realistic situations;
- to create new experiences for pupils;
- to introduce new vocabulary;
- to extend the use of language;
- to reinforce the language already introduced and use it in new situations.

Philosophy

Learning Welsh painlessly

Learning a language is made easier for a young child when the material is presented in an interesting, entertaining way using themes, topics and issues which reflect his or her own world. Making use of the child's multi-sensory skills will accelerate language acquisition. This occurs when the visual combines with auditory input later proceeding to activities such as simulation, drawing pictures, role play or discussion giving the language a practical application, making the learning process complete, enjoyable and effortless.

Language and experience

In "Parablu" the language is presented through a fun loving environment where the children are entertained without any mention of the fact that they are learning. This is achieved by offering the children various experiences which are as exciting and interesting as those they receive through their mother tongue. The characters depicted in the story form relationships with one another; they greet, order, persuade and incite each other by using short succinct phrases which are so essential for communicating with others.

By hearing and seeing colourful characters using the language and repeating the various words while rehearsing and acting, the children receive the first important language learning experiences, namely listening and comprehending.

The teachers' manual which accompanies the series transforms the passive language into an active language in the classroom.

It has to be remembered that he himself/she herself is the most important person as far as the young child is concerned. While watching the series on television the child will have plenty of opportunity to hear the language of the first person singular which allows him to express emotion, his likes and dislikes and his needs, e.g., "rwy eisiau" (I want). He will also hear words which are commonly used in situations familiar to him, situations relating to the family, meals, weather and pets.

It is obvious that repetition is a vital element in the technique of presenting any language. The children are encouraged to play the role of the characters thus recreating the situations and the various stories which take place inside and outside the caravan.

They are given a chance to sing in each programme. Singing is an activity which allows the language to become active during the programme itself. The words of the songs contain ample repetition and the tunes encourage the learners to pronounce the words and to sing while viewing the programme.

Relevance to the National Curriculum requirements in Wales

The National Curriculum in Wales makes it a statutory requirement for Welsh to be taught as a non-core foundation subject for a 'reasonable time' from the academic term Autumn 1990. This suggests that every child in Wales between the ages of 5 and 16 years should have the opportunity to speak the language. This created a crisis situation for many schools in Wales, especially those without teachers who could speak the language themselves, but who were required to teach it to their pupils.

"Parablu", the 48-programme series together with a multi-media resource pack were designed specifically for providing teachers with substantial assistance. The package offered them a clear linguistic framework and daily lessons, which were amusing and lively, and which addressed the programmes of study to enable pupils to achieve the first three levels of the attainment targets of oral (including speaking and listening), reading and writing at Key Stage One of the National Curriculum Welsh Second Language requirements.

Attention was paid to what was suggested in the programmes of study when preparing activities for the actors in the caravan and when designing the supplementary activities suggested in this manual. Indeed, the series was designed to act as a reliable guide for planning work relating to the attainment targets in Welsh as second language in the National Curriculum.

The Report "Cymraeg ar gyfer 5 – 16 oed" (National Curriculum of Wales) maintains "Language teaching should be made as natural, as lively and as painless as possible", and that is the aim of this series.

Every effort was made to satisfy the following recommendations made in the National Curriculum Report (when discussing the importance of the television and video as a language learning aid): "It should be carefully planned so as to increase vocabulary and strengthen grammar and syntax while at the same time the whole project should be natural and entertaining for the pupils".

The National Curriculum Statutory Order for Welsh Second Language further states that teachers should develop pupils' ability to listen to the particular sounds and accents of Welsh and gradually to become acquainted with the sounds of the new language in order to differentiate between them so that they are able to understand words, phrases and sentences.

Pupils should be helped to master appropriate and natural pronunciation and intonation in their new medium in the context of varied activities and communicative experiences. Initially, pupils should be given opportunities to display their understanding without speaking, for example, by gesture, following instructions or drawing a picture. When they come to generate language, their expression should be clear and audible.

Work should be directed so that the range of children's conversation extends as they become more skilled in the language. The range of their Welsh experiences, as well as their use of language for various purposes, should extend so that they acquire varied and idiomatic language resources. The range of the social contexts should be extended by providing opportunities for roleplay.

Pupils should be motivated by offering them varied experiences, including attractive material on audio-tape or video. Where possible, cross-curricular experiences and activities should be presented. In addition, radio, television and video programmes of interest to them should be presented.

Reference should be made to themes which will afford opportunities for pupils to respond and to begin using the language in various ways. Such themes may be based on a story or situation, an event, a character, or a purposeful personal study. A number of themes such as the world of school, everyday life, television, home and area, leisure and interests, weather and time, travel and holidays, town, country and sea, should be covered, though the situations and experiences within these themes will reflect the age and maturity of pupils. Vocabulary and sentence structures should therefore increase and extend each time a theme is brought up again. Some themes should feature in particular key stages – such as play experiences/fantasy in the primary phase.

The "Parablu" series ensures that the requirements of the National Curriculum are well addressed in the following ways:

- the theme allows for repetition without being laborious;
- the language is used in a variety of contexts;
- ideas for a variety of themes are provided;
- all programmes are graded to allow children to extend their conversation as they become more skilled in the language;
- the series provides a basis for the development of role play in the classroom.

To meet these requirements, "Parablu" programmes had to be versatile. Hence they may be used in many ways:

- to introduce new vocabulary and phrases;
- as the central resource in the classroom supported by activities;
- to consolidate work already accomplished in the language;
- to support work in the language by allowing the pupils to listen and view the programmes to hear the language in use.
- to provide a source of inspiration for teachers lacking experience in teaching Welsh as a second language.

The Theme of the Programmes

"Parablu" centres around the activities of a group of actors called "Y Carafanwyr" (The Caravanners) who tour in their caravan putting on shows for children. The caravan is an interesting, busy centre with a variety of rooms where the actors prepare for their performances – dressing up, creating props and sets, composing music, script-writing and rehearsing generally. It also opens out as a stage for the performances.

The Caravanners live in their caravan, in a homely family atmosphere where their activities include the preparation of meals, eating and drinking and retiring to bed. Therefore as part of the fantasy world, the vocabulary and concepts of the real world are also presented to the children.

And, of course, since rehearsing, the learning of parts, and coaching are all part of an actor's work, a splendid opportunity is given to repeat and thus consolidate the language.

We are also given an excellent opportunity to read the written word on the screen because the writing and rehearsing of scripts are part and parcel of the actor's work. In addition, the producer types his scripts on a computer and sometimes we see the words and the script on the screen. The written word is also displayed on posters and advertisements used to publicise the play.

Support material

A wide range of resources were produced to enable teachers to make effective use of the programme for teaching Welsh. All of the resources were specifically designed for learning a second language. These consisted of:

- the series on 4 video cassettes to encourage interactive use of the programmes;
- a bilingual Teachers' Resource Pack consisting of a teachers' manual, two language cassettes with accompanying transcripts, two cassettes of songs and line drawings of the characters;
- class Reading Books with full colour illustrations with accompanying audio tapes;
- a Book of Songs with music scores from the series;
- portrait posters of each of the characters;
- a puppet of Tilsli, the favourite character, whose mouth can be operated by the children so it becomes a language tool;
- computer software.

Transmission schedule

Each of the programmes in the "Parablu" series forms sets of three with the first two introducing new vocabulary and phrases and the third revising what has already been presented but in a different context. Every three sets were followed by three programmes which reinforce the language previously presented.

The transmission schedule enabled the first two programmes in every set to be repeated at least once. The pattern was as follows:

Monday	Programme 1
Tuesday	Repeat of Programme 1
Wednesday	Programme 2
Thursday	Repeat of Programme 2
Friday	Programme 3 – revision of ideas and vocabulary presented in Programmes 1 and 2

Marketing

HTV's Education Department has established a highly efficient marketing system for informing potential customers and distributing all its educational products.

The efficiency of the system has benefited from market research undertaken by the Education Department followed by informing the consumer using a variety of techniques:

- direct mailing to 3,000 addresses;
- viewing groups and discussion forums;
- in-service education for Teachers' Courses;
- demonstrating the products;
- sale days;
- offering material on approval;
- informative brochures, posters and illustrated catalogues;
- free courses;
- demonstration packs at Teachers' Centres;

Support service

HTV Cymru Wales' Education Department employs a Schools' Liaison Officer whose duties fall into three categories:

1. research;
2. commissioning and publishing support materials for programmes;
3. liaison with schools, Local Education Authorities (LEA), Colleges and all other educational establishments throughout Wales, which involves running In-service Education for Teachers' Courses.

In respect of "Parablu" the support service included the following:

- assisting individual teachers to make effective use of the broadcast or video material;
- running instructional courses at LEA and individual schools;
- operating workshops to enable teachers to gain 'hands-on' experience particularly in respect of interactive use of video in teaching language;
- running viewing and discussion forums;
- demonstrating the use of the multi-media package;
- offering the package on approval for rigorous testing and implementing prior to purchasing;
- operating sales at various centres where teachers could examine the materials first hand.

Teachers found this range of support service invaluable because the Schools' Liaison Officer was fully conversant with every aspect of the project due to her involvement from the earliest planning stages through to its conclusion.

It must be emphasised, however, that "Parablu" was never designed to replace the classroom teacher. As the only language used in the series was Welsh – other than an English voice-over at the beginning of the first six programmes – many teachers found it difficult to use the programmes without thorough preparation. Due to pressures placed on teachers by the National Curriculum, there was some degree of reluctance to this preparation. Teachers expected the television broadcast to teach the language to their pupils, minimising their intervention.

HTV is not in the business of producing courses but rather educational resources which will enrich the learning environment and are intended to be manipulated by the teacher. The assistance given to teachers through the various courses available enabled them to understand the philosophy of the series and to use it effectively.

Success after the first transmission in 1990/1991

The series generated superb response. This was mainly achieved by

- thorough and rigorous research at the three stages pre-production, piloting, and evaluation;
- responding to the needs of pupils, teachers and LEAs;
- providing a framework for the development of classroom activities but with sufficient flexibility to allow teachers to be in control of their own learning environments;
- a very strong, positive but workable philosophy;
- the readiness to liaise and consult with experts from each LEA and educational bodies in Wales;
- a good understanding of children and how they learn;
- an experienced and professional production team and advisory support;
- using expertise and centres of excellence to produce support material;
- presenting language in an innovative and colourful way to make learning painless;
- the use of an advisory panel consisting of representatives from all LEAs, CCW, Cynllun y Siroedd and colleges;
- an organised support service offering INSET, individual support, multi-media resource pack, materials on approval, courses for student teachers and staff development courses;
- liaising closely with teachers;
- publishing worksheets and cartoon strips in a Welsh second language magazine published by the Welsh League of Youth.

All of these factors combined and many others besides, contributed to the success of the series and its accompanying multi-media resource pack, which were considered to be relevant, practical and reflected the needs of the classroom teacher.

It was also the first national project that successfully drew on expertise from all the educational establishment in Wales in respect of Welsh as a second language.

By the end of the first year of transmission in excess of 1500 Teachers' Resource Packs, 1100 class reading-books and 1800 videos of the series had been sold. This response was considered to be excellent since the potential market comprises 1753 schools.

The whole series will be repeated in the academic year of 1991/1992, and the sales of the support material are expected to increase further.

The credibility of the series has been recognised by the Welsh Office who has given "Parablu" its full support by providing a substantial sum of money towards its production.

Future direction

Educational programmes are rarely evaluated outside the circles of education departments within television companies and their regulating bodies. Because "Parablu" is so innovative but yet such an important resource for implementing Welsh in the National Curriculum, particularly in the most anglicised areas of Wales, it is the Company's belief that it should be independently evaluated.

The Education Department at the University College of North Wales, Bangor, has submitted a research grant application for this purpose. It is HTV's belief that the success of "Parablu" can only be measured through an independent evaluation.

In June of 1991, HTV's Education Department submitted a proposal to The Welsh Office for the production of 40 new programmes which will allow children to progress from Key Stage One to Key Stage Two in respect of Welsh whilst ensuring continuity and development of the language.

The departmental evaluation of the "Parablu" series revealed that it had several limitations which have been avoided in the proposal for the new series for Key Stage Two.

The aspects of improvements include:

- the use of greater variety of accents and dialects;
- moving into a community setting where language is used naturally in realistic situations;

- retaining but reducing the element of fantasy to reflect pupils' levels of maturity;
- clearer use of the written word on screen;
- introducing new language patterns and vocabulary in a simpler format, slower but naturally;
- the inclusion of two INSET videos as a supportive self-study or training package to accompany the series.

The production of the series for Key Stage Two is subject to commissioning by the Welsh Office. In the meantime, the "Parablu" series will continue to be evaluated by the Education Department at HTV Cymru Wales.

Susan Inberg

Serving the Schoolchildren of a Linguistic Minority

For a linguistic minority, access to the media in their own language is of vital importance. As regards radio and television, this access forms part of the obligations of public services. It is hardly conceivable that others than the public service institutions should be able to produce programmes in the language of a minority. Everything happening outside the big broadcasting companies can only be marginal because of the small size of the target group and poor prospects of making any profit.

Admittedly, in countries with numerically large minorities the situation may be different, but in the country of this example, Finland, the number of Swedes amounts to only about 300,000; the total population is approximately 5 million. The Finland Swedes are concentrated along the coast in the South and in the West.

Why a minority programme?

The members of a minority need a programme in their own language to strengthen their identity and solidarity. Language in this respect is a much more important factor than is often supposed. Language is at the centre of the entire process of human perception and comprehension. A minority having its own radio channel and other media is in a much better position to its interests vis à vis the majority than, say, a minority without even recourse to a written or literary idiom of its own.

Having its own media is of very practical importance; from a mere linguistic point of view such facilities establish standards for all those who speak the minority language. On this basis it can be maintained that all programmes produced for minorities are educational programmes.

Which minority?

Different linguistic minorities have certainly different necessities: the difference between minorities and a majority is very rarely just the language. For example, no one would contend that Finland Swedes are just Swedish-speaking Finlanders. A recent survey on behalf of the YLE has shown that opinions held by the majority and the minority on national and ethical questions vary significantly.

Finland Swedes are in principle entitled to use their own language and to receive social services in their language. On paper and in everyday life we are and have been for a long time now linguistically equal. Thus we have our own school system in Swedish; we have almost 400 compulsory education schools for children from 7 to 16 in addition to secondary schools and vocational schools. We also have our own Swedish high schools, cultural institutions and newspapers: it must be pointed out that 70,000 out of the 300,000 Finland Swedes do not even speak Finnish.

Finland Swedes on the air

Finland Swedes have two radio channels: one full-service channel and one channel broadcasting regionally from six stations 3 – 5 hours of programmes per day. Finland Swedes also have their own TV-department, which over the two YLE channels broadcasts almost 900 hours programmes in Swedish per year. This amount will be increased to more than 1,000 hours within the near future. At present, YLE offers approximately 20 hours of Swedish programmes per week to Swedish listeners including Finnish programmes with Swedish subtitles.

In addition, the vast majority of Finland Swedes receive Swedish TV. In Finland, however, TV services are largely run on commercial lines, paying little consideration to the interests of the minority.

Educational programme service

All the programme categories available to the majority are equally provided for the minority, including the educational programme service. The number of broadcasting hours of the Swedish educational programme on the radio amounts to approximately 160 p.a. and on TV approximately 50 hours p.a., including repeats and imported programmes.

Moreover, we have our own publication services comprising 15 – 20 titles per year. For a minority with restricted means it is important to set clear priorities. Within the framework of the vocational programme we have stressed the importance of school programmes, i.e. programmes for children. The programmes are set in the children's own Finland Swedish reality and environment. This is very important, as no one else produces this type of programme. This means that new productions have concentrated on this topic for reasons of strengthening identity and language.

Another reason for our focusing so much interest on school programmes is that we want to raise the number of interested viewers. There are families who watch either Swedish or Finnish TV, showing little interest in Finland Swedish programmes. In this case we want at least the children to know about the programmes offered to Finland Swedes.

In addition, it is important for everyone and not just the children of minority populations to learn how to use TV in a reasonable way, realising that TV can also be used for something other than just entertainment.

Even if the target group of our new productions is Finland Swedes, this does not mean that school institutions could not use other programmes as well. For disciplines requiring a lot of resources, such as biology and geography, we endeavour to produce the required material in cooperation with others or to buy already existing material. We are also almost the only service able to provide the Finland Swedish public with AV-material in Finnish. Since many Finland Swedes are living in areas where only Swedish is spoken, there is great interest in Finnish courses for both children and adults. Besides, we produce a lot of material for education in other languages.

Competition

In the area of Swedish educational programmes for schools, competition is not very strong. No one else in Finland besides YLE has the necessary resources to make such programmes, however the requirements to be met are still very high.

Since there are only a few Finland Swedish book publishers and their resources, too, are limited, there is a pressure on both them and us to try to give the schools as much new and up to date material as possible. The book publishers are not always in a position to re-print and update their publications as often as would be desirable and in this respect topical radio and TV programmes play an important role.

Any direct competition in the field of educational programmes comes from Sweden and from the Finnish side, but so far it has hardly been of any real significance.

There is, however, another form of competition within YLE outside the field of educational programmes; Finland Swedish programmes must be so good that they give the Swedish section the right to exist. For this reason, the programmes should at best be of a higher quality and less expensive than those of the majority. In this respect there is more than enough competition. Here we must apply all our efforts to searching for programme forms the majority does not exploit and which attract both Finnish and Swedish audiences.

A good example of such a programme is "X-tra", a news programme produced in cooperation with the Department of Child and Youth Broadcasting.

Why is X-tra a "special" programme?

- X-tra provides revealing answers to simple questions.
- X-tra uses children as reporters, ensuring easy identification for child viewers.
- X-tra puts extra stress on the visual side using maps and other graphics.
- X-tra wants to have enough space between items, so that there is time for thought during the pauses.
- X-tra's form varies from time to time, and we are not afraid of using humour in the programme.

"X-tra" goes on the air every Friday, both during the day and in the evening, and at times over two thirds of all Finland Swedish viewers tune in. According to our research, a large part of the spectators are native Finnish, watching "X-tra" to learn Swedish: above all, we believe, they are watching "X-tra" because it is a very good programme.

The overall idea of the Finland Swedish department, whose existence is based on providing a public service, is to maintain high programme quality. The programmes may well be special and differ from those for the majority, but by comparison they always have to be better.

Advantages and disadvantages

For a minority with its own network, e.g. for educational purposes, there are of course certain very clear advantages. Above all, relatively few people are involved. It is easy to ascertain viewer's requirements, to maintain contact, and to obtain some feedback. The negative side is that the number of staff is too small to achieve much creative interaction. In other words, there is a lack of personnel resources, which is bound to have effects on the atmosphere of the whole.

Furthermore, the minorities are waging a continuous fight for economic resources. For a minority to stand its ground, a readiness to fight as well as to cooperate is necessary, and above all the talent to judge when to cooperate and when to fight.

Hans Bebermeier

"Jack in the Box" – Early Exposure to a Foreign Language in Primary School

Primary school pupils in Germany hear and read English words outside school every day. Even in their second year at school, they can usually use over 50 English words and phrases when talking about run-of-the-mill experiences. They particularly enjoy imitating invented German, and quickly and happily adopt foreign expressions.

These prerequisites formed the basis for the concept of "Jack in the Box". The TV series employs songs, rhymes, tongue twisters and games in such a way that the first encounters children make with English produce a mixture of fun and laughter, imitation and action, singing, speaking, games playing and acting.

The English language in everyday life for primary school pupils

Almost daily in the world around them, primary school pupils meet people who speak a language that is foreign to them. At school, they hear Turkish, Greek or Italian and, during their free time, they encounter English: in TV advertisements, in children's and teenagers' magazines, on posters and in newspaper advertisements, on their technical toys, on household appliances, on food packaging, and in radio and TV entertainment.

English has become a fixed element of everyday life for our primary school pupils. Indeed, this has been confirmed by surveys carried out in a large number of classes in various areas of North Rhine-Westphalia during 1984, 1989 and 1990. Among other things, these surveys revealed that the active vocabulary of a second grade pupil contains an average of 78 English words and phrases.

The concept of "Exposure to a foreign language"

"Exposure to a foreign language" is a novel concept that forms part of the new guidelines and syllabuses for primary schools. In North Rhine-Westphalia, the observations made in school tests, which were also carried out in other Federal States (including Hesse, Bavaria, Schleswig-Holstein), were used to develop and test a concept for revising the guidelines and syllabuses of primary schools. The aim of the concept was to offer pupils and teachers the chance of using a different language from their mother-tongue in the classroom.

The concept in question[1] uses the knowledge acquired through an experiment named "English at Primary School", which was carried out in the primary schools of North Rhine-Westphalia over a period of many years. In addition, this concept uses the results of experiments performed in the schools of Hesse and Sweden. What was discovered can be summarised as follows: children of pre-school age and those in primary school easily assimilate elements of a foreign language in an intensive and imitative manner. This is especially true if the foreign words and phrases are introduced and used in a game-like form.

The ideas behind the various phases of exposure to English

The starting and focal point of the new concept is the primary school pupil's real-life environment, both present and future. The foreign language element of this environment should result in an "informal lesson" and become the centre of what happens in the classroom. Moreover, a thematic connection should be made between this element and the subject areas of language, music, sport, mathematics and the sciences.

Children assimilate foreign languages in an imitative manner during the phases of speaking, playing games and singing. They enjoy singing English songs. They are proud if they can repeat and recite English tongue twisters, rhymes and riddles. They display great satisfaction when they can extend their newly learnt linguistic skills during active games, songs and role-plays. They delight in showing that they have become aware of linguistic phenomena in the world around them.

The aims and contents of these exposure phases are directed towards:

(a) the attainment of a level of social and linguistic skills that is based on age;
(b) the stimulation and preservation of motivation, which is necessary to learn languages in school and outside;
(c) to develop self-esteem;
(d) to dissipate prejudice.

Exposure to English does not serve as a replacement for systematic language lessons at the secondary school level. However, what it does do is to help combat the fear of making contact and of new places that many children experience during their first lessons at subsequent schools.

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[1] Begegnung mit Fremdsprachen in der Grundschule – Beispiel Englisch (Exposure to foreign languages at primary school – the case of English). Soest: Landesinstitut für Schule und Weiterbildung 1985.

"Jack in the Box": Ideas behind the series

In order to realise the concept briefly described above in a methodological manner, the TV series, "Jack in the Box", presents teachers and pupils with material that was designed in the assumption that children enjoy games, that they are instantly willing to imitate and act, to repeat and speak spontaneously, and to learn how to handle language.

"Jack in the Box" is a series of four broadcasts of 15 minutes each. In the programmes,

- real-life film scenes alternate with didactic phases;
- German primary school pupils (Simone and Ingo) meet English primary school pupils (Patrick and Lucy);
- there are songs, rhymes, tongue twisters, as well as clapping, singing and active games familiar to English and German children,
- the young viewers are shown some "typical" linguistic mannerisms, as children and adults face everyday situations;
- viewers are offered game-oriented or speaking situations which they can immediately assimilate or imitate;
- attention is drawn to characteristic distinctions and peculiarities between German and English primary school children in both their non-verbal and verbal behaviour.

Contents of episodes

In the first four episodes, "Jack in the Box" presents game-like situations and scenes of dialogue, in which linguistic elements have been carefully integrated. These elements are considered in their entirety and can be learnt. Furthermore, a major didactic vehicle in the series is its artistic and game-like form.

Episode 1: "Let's play"

Simone and Ingo are at a playground, playing on the swings. Lucy and Patrick come along and join them – on the swings, at the table-tennis table and on the football pitch. "Jack in the Box", after whom the programme is named, accompanies the children. He serves to intensify, clarify and extend both games and dialogue. He comments on what the children do in mime, thereby focusing the viewers' attention. He imitates the characters' questions, answers and exclamations, thereby explaining their meaning.

At certain points, he introduces a rhyme or song that fits the situation and the linguistic theme. Interventions of this kind serve both to add body to the plot and to provide didactic stepping-stones that are of a model nature for all the episodes when used during exposure sessions in class.

Episode 2: "Let's go shopping"

Simone and Ingo meet Lucy and Patrick in the street. They go to the supermarket together and offer each other help when shopping and changing money at the bank. Jack has prepared a shopping list for the children, so that they can understand everything and do not forget anything.

In this episode, Jack gives teachers and children some tips: how to pile up goods without counting them; how important it is to have the correct change ready; how quickly one can start stuttering (tongue twisters!) if one digs one's nose too deeply into a bag of pepper.

Jack constantly encourages viewers to imitate and repeat. He manages to inspire them to speak and sing along with the programme. He motivates them, so that they repeat individual scenes of dialogue. He persuades shy pupils (whether reluctant to sing or speak) to learn whole dance tunes or tongue twisters by means of imitation.

Episode 3: "At school"

Simone and Ingo go to see Lucy and Patrick in their school. They witness themselves the pupils arriving by bus, and the games played in the school playground. They accompany Patrick and Lucy into class – unfortunately, arriving late! Nevertheless, the teacher gives them a warm welcome. The children find a desk and soon join their English colleagues, who are of the same age, in a song – "Are you sleeping, brother John?". The text is sung in many languages around the world.

Jack is present, of course, when Simone and Ingo see an English classroom and get to know an English teacher. He is there when they are shown how English pupils behave on arriving late at school; when someone offers them a seat in class; when they find out what happens in the playground during the breaks. The school atmosphere inspires him to adopt the role of a latecomer, stirs him into becoming a teacher. Jack, as teacher, who would like to explain again how pupils are allocated a seat and what the objects in a classroom are called.

Episode 4: "Bye, bye, Lucy and Patrick"

Ingo and Simone know that Lucy and Patrick will soon leave and visit them to give them a farewell gift. The children are overjoyed about the present – a "Jack in the Box". They play a game together on the living-room table until Ingo and Simone must leave. As it is now five o'clock: "It's five o'clock; we must go home".

Jack really feels in his own element in this episode. He plays with the miniature version of himself; with his reflection in the mirror; with miniature toys (toy rubbers); with children in the studio; with himself; with his own fingers and hands, etc. During these games and through his playful manner, Jack skilfully returns to familiar linguistic material and uses it in various situations, so that viewers gradually get to know some songs and rhymes. Through pantomime, he encourages viewers to be involved: they speak, sing and play with him.

Methodological recommendations on the use of the broadcasts and support material

The following points should be considered when planning exposure phases and when deciding which sections of the programme to employ for individual school years or classes:

Through Jack, the real-life and didactic scenes in the series contain elements of song, games and dialogue. In this way, assistance is offered when implementing the new concept for exposing pupils to English in the subject areas of music, sport, language, and the sciences, as well as during those inter-disciplinary study groups that prove suitable with regard to methodology and psychology.

The design and realisation of the series enable the following methodological approaches:

(a) Whole episodes are shown. Afterwards, individual scenes (song, game, dialogue) are repeated and acted out.
(b) Only the real-life scenes are shown at first. They are imitated in a playful way, and the dialogue may be extended. Subsequently, individual scenes with Jack are introduced and actively "assessed".
(c) Mainly the scenes with Jack are used. Viewers relate to his actions or comment on them in an active and verbal manner.

The merging of real-life passages with didactic ones not only permits great flexibility in the use of episodes and, indeed, of the whole series, but also allows for exposure sessions that are limited in time.

For pupils accustomed to watching television and teachers accustomed to using it, the design of the series offers additional opportunities for assessment by eye, body and speech.

The four episodes boast thematic continuity, and this is easily recognised by primary school pupils. However, the episodes can be shown in isolation, in accordance with the main thematic focus of sport, music, language, mathematics and science lessons.

The individual episodes, where the pair of German and English boys and girls alternate with Jack as the main protagonists, are clearly organised in a way that is immediately recognisable. Consequently, pupils accustomed to watching television and teachers accustomed to using it are offered additional opportunities for assessment by eye, body and speech.

The integration of this series into classroom teaching is particularly successful and effective if sessions of exposure to English have been a regular part of lessons since the second half of the second school year. Indeed, second-year pupils even benefit from seeing the series itself, as a form of exposure to English, providing that they repeat and act out, or sing and speak along with the passages they like.

Details about "Jack in the Box II"

"Jack in the Box II" is a four-part series and was first broadcast in the spring of 1988. It was designed according to the same pedagogical basis as the first four episodes and was filmed in the same manner. The encouraging number of positive responses from pupils, parents, teachers and "bystanders" motivated authors and editors to keep the basic structure of the series, as described above.

However, the great number of enquiries and comments led to minor changes of stress with regard to the following:

- the design of the studio sections;
- the allocation of more time and more teaching tasks to the "Jack in the Box" character;
- the stress on authenticity in the real-life scenes, which includes, among other things,
- a slight increase in the speed of speech in the role-play scenes.

"Jack in the Box II", with its four episodes, also offers songs, games, rhymes and role-plays, which can be used by pupils and their teachers during the phases of exposure to English. It is assumed that this series will be integrated into exposure sessions in the fourth year, once the third-year children have already become familiar with the first series.

The contents of the four broadcasts or episodes are organised as follows:

Jack and his actions are the focal point of the studio scenes, which are designed in a didactic manner. Here, Jack creates the right atmosphere and prepares and stimulates viewers for what is to be shown in the real-life scenes. Music (songs) and theatre (gestures, facial expressions, imitation) build up the pupils' sense of anticipation and make the change to the real-life scenes easier for them.

The studio scenes with Jack also show both pupils and teachers the large number of opportunities available for follow-up activities. In other words, Jack (i.e. the miniature version of him) selects and uses several sections of the real-life scenes in the studio, adapting them and presenting them again in his own style, so that children are shown how much they have learnt when starting to work with the short film passages, and the acting and text passages in class.

The real-life scenes were shot in England. The two German children, Simone and Ingo, are the guests of their English friends, Lucy and Patrick, in England. Together, they experience several small, everyday incidents and allow our fourth-year pupils to share in these experiences.

The studio and real-life scenes are complemented by singing, clapping and active games, as well as by songs that are familiar to English and German children of the same age. Here, the principle that the linguistic material and its presentation should be authentic is geared to the pedagogical limits and capabilities of primary school pupils.

Contents of the four new episodes

Episode 1: "Are we in England now?"

Lucy and Patrick fetch their German friends from the airport. As Ingo and Simone get into the car, and during the journey, they see a lot of funny things (steering-wheel on the right-hand side, cars driving on the left-hand side of the road, queues at bus stops, door knockers instead of bells, etc.). Jack begins the new series in the studio, where he plays about with model aeroplanes and introduces new words and phrases. This vocabulary facilitates the pupils' understanding of the situations, exclamations and questions that are contained in the first episode.

Episode 2: "It's great!"

The scenes shown here reveal how the table is laid for breakfast, what a real English breakfast consists of, how people buy things in a corner shop, what they buy and how they find it, and how one speaks to the postman.

Episode 3: "Alright children?"

It is Sunday and Ingo and Patrick are busy washing, brushing their teeth and combing their hair in the bathroom. Preparations are made for a trip to the picnic area on the outskirts of town, and the picnic takes place. The children learn the weekdays and identify numbers. Routine actions (in the morning) are explained.

Episode 4: "Ten today"

It is Simone's birthday. This episode shows the preparations for her party, how one congratulates people on their birthday and how to offer presents.

This new series of four episodes provides both pupils and teachers with additional opportunities to hear and use English. The episodes are so designed that they employ the knowledge gained during the first series of "Jack in the Box", as well as the ideas discussed by over 120 male and female teachers during regionally-based teachers' conferences. The conferences were concerned with the various stages of introducing foreign languages into primary school classes.

It is quite possible to integrate parts of this school series into primary school lessons in a variety of hybrid forms, and this fact has already led to the broadcasts being used in a most flexible manner. Indeed, the more flexible the methodology used, the greater the probability that pupils and teachers will enjoy the English element of their lessons.

Jörg Goralewski

"Beyond the Big Cities" – Flashes from the Production of a Series for English and Geography

"Don't kid yourself. Do you really think you can give a representative picture of American society in five 20-minute films?" The question asked by the press attaché at the embassy of the USA sounded curt and reproachful. That was in July 1987. I had turned to the embassy for help with the research work for the USA project "Beyond the Big Cities".

Now I had been suddenly put on the defensive, and I was finding it extremely unpleasant. For it was clear to everyone who had looked into it that the project would not be without its problems. Yet at that time there were only a few ideas as to how the problems could be solved and the films produced.

Beyond the soap operas

In the beginning was the desire to correct, to counter, the current clichés about the United States, the Americans and American society. We began by assuming that most German schoolchildren know what Kojak's precinct in Manhattan looks like, which make of tennis shoes is preferred by Sunny from "Miami Vice" and what kind of work Sue Ellen does in "Dallas". But what do we know about the "middle American" who is not delivered into our homes by satellite or video tape as a soap-opera figure? What does America look like between New York and Dallas, Miami and San Francisco? That is terra incognita not only for the majority of school children; probably James Dean is all that occurs to most teachers as well when they hear the word "High School", and when the sheriff is concerned they no doubt think first of Wyatt Earp.

The title for the series was very quickly found: "Beyond the Big Cities". We wanted to get away from the urban centres and go to the "middle of America" – not only sociologically but also geographically. We wanted to go to where, in the opinion of many Americans, the heart of America still beats, regarded pityingly by some as backward provinces, acclaimed by others as the "American Heartland", as the last bastion of the original American virtues: to the Middle West.

The content and structure of the series were taking shape. From the very beginning it was agreed that there should be two series, one for lessons on politics and one for English. We wanted to deal with five subjects in five different towns, as documentation in the best sense of the word. As far as possible we wanted to do without a commentary. The people who appeared in the films were to speak for themselves.

The cooperation with the American Embassy in Bonn-Bad Godesberg took a very positive turn. The Cultural Department sent information material; from the library I received references to literature on the subject areas we had in mind, and the Press Section assigned me an Action Officer in Washington, D.C., who was a member of a service integrated into the embassies: the United States Information Service (USIS), called in the USA the United States Information Agency (USIA).

George – that was the name of my Action Officer – looked after foreign film teams in the USA. He was helpful, efficient and discreet. I had made it quite clear at the outset that I did not want to work under official government supervision but only intended to avail myself of the logistical aid that was offered. George accepted that. His help ranged from ordering information material and establishing first contacts with local informants to reserving hotel rooms and renting cars.

Towards the end of 1987 ideas regarding the content had become even more concrete, and considerations of the technical aspects of the production were also beginning to influence the planning. The cost factor was important for everything. The decision to look for five towns in the four states of Iowa, Illinois, Kansas and Missouri was also influenced by distances and travel times.

A synopsis was made containing short descriptions of the subjects and specifications for the towns we were looking for: they should be small with a population of between 30,000 and 50,000; the social structure should be as close as possible to the average; and they should be at least two hours by car from the nearest large city, because an American in the Midwest is prepared to travel two hours each way to go to an interesting concert or football match.

The five subjects named in the first synopsis were: political organisation, social system, local media, churches and youth. I wrote to the Film Commissions which are to be found in every state in the USA. George wrote to chambers of commerce and tourist offices and activated his contacts. Quite soon the first information material started to arrive at the production department in Cologne from all corners of the five states.

This included colourful prospectuses for tourists, long economic reports, labour and welfare statistics with lists of the firms without trade unions and letters extolling the particular virtues of the town on one subject or another. The Film Commissions in Chicago and St. Louis sent several volumes of Film Production Guides listing all kinds of specialised companies from cable rental firms and catering services to special effects men. We were sent the local telephone directories from Dubuque in Iowa and Manhattan in Missouri.

The material from about fifty towns was piling up in the production department in Cologne and had to be sorted out. Although there were some towns which were eliminated at once because they were too small, too big, too unusually structured or were not small towns but "edge towns", the suburbs of a big city, the data and characteristics of over thirty places were systematically recorded.

Then the selection had to be made because it was time for the first research on the spot. Ten towns and two in reserve were left over. Washington, D.C., was also included in the itinerary in order to meet George.

I only had one to one and a half days for each of the towns to find out whether they were what we had in mind and whether they provided the conditions required to treat one of the subjects. The hospitality was quite overwhelming when the breakfast planned as a working meal had to be taken in an idyllic but remote holiday centre, or when the mayor wanted to extol the virtues of his community just as the jet lag was beginning to make itself felt. It was really not a pleasure trip: eleven towns in 21 days, with some 4,000 kilometres in rented cars and a few thousand kilometres by plane.

Growth overnight

When I was back in Cologne several things cropped up which had only been half consciously taken in. The experiences were again put into some kind of order and the pros and cons were weighed. My colleagues had a surprise in store for me: during my brief absence it had been decided not to produce any more programmes of 20 minutes', but only 15 or 30 minutes' length.

Of course, only the 30-minute version could be considered for "Beyond the Big Cities". In view of the many fresh impressions my resistance was only brief and half-hearted. My proposal to produce only four instalments after all was not taken seriously. And so the size of the undertaking had – overnight, so to speak – grown by fifty per cent.

Naturally, questions of contents were decided on. The five towns were selected, subjects allocated, expanded, changed, adapted to the people and situations I had come across. The two subjects "social system" and "churches" were combined.

A completely new subject was adopted: "university and local business". The reason for this was that in Columbia, Missouri, I had not only found a town which is economically largely dependent on the university, but also the mayor had developed a smart scheme for expanding Columbia's position as a university town and a regional services centre.

The new synopsis of the two series, each five times 30 minutes, now looked like this:

1. Youth and Education (location: Mason City, Iowa)
2. Political Organisation (location: Salina, Kansas)
3. Economics and Higher Education (location: Columbia, Missouri)
4. Social System and Churches (location: Quincy, Illinois)
5. Local Media (location: Cape Girardeau, Missouri).

Here the following aspects were, whenever possible, to be taken into account:

- the significance of "freedom" for the Americans; the contradiction between "individual freedom" and "law and order";
- job mobility, the willingness to learn all life long, pride in one's career;
- women's role in public life, "women's push";
- minorities and ethnic groups;
- the significance of international affairs for the average American citizen.

It was again pointed out in which form the films were to be produced: they were to be documentations which were as authentic as possible. The events and people presented in the films should – as far as possible – speak for themselves and not have to be explained by a commentary.

This idea was accepted and could mature. But more and more doubts began to arise. Was it going to be possible to carry out the project – producing two series of five times 30 minutes, so altogether 300 minutes – with the minimum means that had been provided? At least an editorial or production assistant had to be found.

Fortunately, the Westdeutscher Rundfunk (WDR) is one of those ARD stations which still takes on trainees. And one of these joined the mini-team consisting of a camera man, camera assistant, sound engineer and director. Her main job was later to keep a record of the filming and to help with the organisation on location.

First, the second research trip had to be prepared. It only took in the five towns in which we wanted to film. As thirteen days were available for this tour it was really quite leisurely compared with the first. During this trip it was chiefly a question of finding filming locations and interview partners.

Always on the go

Back in Cologne there were only three weeks left to prepare for the filming. Dates had to be coordinated, and flights, rented cars and hotels booked. Routine affairs – of course, but just finding a team van that was spacious enough and which could be taken over in Iowa and handed back in Missouri necessitated countless telephone calls and cost well over 1,000 marks. The solution found in the end with George's help in Washington was then only possible because the author stood surety for the price of hiring two cars and advanced some 8,000 marks at the end of the trip.

Of course, the plans for the individual sequences still had to be put into concrete form and scripts had to be written. This already resulted in some difficulties for Mason City, where we wanted to start shooting. As mentioned above, the subject there was "Youth and Education". We were supposed to film during Home-coming Week, when the high school students put on parades, variety and bonfires to celebrate their football team at the beginning of a new season. But the details of the programme were not fixed until we were packing our cases in Cologne, so that we had to put a lot of question marks into the shooting schedule.

Incidentally, you have to imagine the home-coming activities as a mixture of carnival, fan-club enthusiasm and good, honest school morality. For the parade the boys turned themselves into wild-looking fellows reminiscent of Vietnam fighters and the girls into shrieking groupies, who together – to the accompaniment of strongly-worded slogans – burnt the opposing team's mascot, while the evening before, at the crowning ceremony of the school's king and queen, they had gathered in a well-behaved crowd under the Stars and Stripes to sing a beautiful and uplifting song, so that the picture of the Mohican, the school's symbolic figure, appeared to be rather anachronistic.

When we arrived in Iowa on 3rd October, 1988, I had the draft scripts in my luggage – they were thin enough. Mason City was not the only town where we could first find out most of the times for our schedule on the spot, sometimes only a few hours in advance. This meant we were always on the go. When we were not filming, research had to be done and preparations made for the next day and the next town and, of course, the remaining scripts still had to be written. It went on like this over 49 days. And it was successful, almost everything went off well, otherwise the series would not exist today, or at least not on the scale planned. Naturally, not without a lot of stress, both for the individual members of the team and for the relations within the group.

The result

For the time being, however, not a lot of time was left to give any thought to the processes of the group dynamics. Apart from the daily routine production work, the electronic editing, which began on 2nd January, 1989, had to be prepared. There were 76 cassettes of film to be looked through, and interviews and off-screen sounds to be registered. It was impossible to take a breather or to put things off, since the dates of transmission had been fixed long before and were printed in the programme magazines.

In April 1989 the first instalment of the German version – "Jenseits der großen Städte – USA" – was broadcast in the 3rd Programme of WDR. The four other instalments followed at weekly intervals. The transmission of the English version – "Beyond the Big Cities" – began on 16th May, 1989. The titles of the instalments are the same for both series, which, however, differ otherwise in their compilation and the selection of the interview parts:

1. "Mason City, Iowa"
   (Subject: High School Education, Youth)
2. "Salina, Kansas"
   (Subject: Local Government)
3. "Quincy, Illinois"
   (Subject: Churches, Social Security)
4. "Cape Girardeau, Missouri"
   (Subject: Local Media: TV, Newspaper, Radio)
5. "Columbia, Missouri"
   (Subject: University & Local Business)

The German version is intended for the lessons in politics and geography from the 9th class and above, and the English version for English lessons on life and institutions from the 9th/10th class. In the meantime we have heard that the English version is used both for students of English at the universities and for adult education classes at the Volkshochschulen, the German adult education centres. But the individual instalments are so constructed that for teaching purposes there is no difficulty in dividing each one up into three sections, i.e. without impairing the understanding or the film aesthetics. Information for the teachers and working material for the pupils were published separately in the magazine "Praxis Schulfernsehen".

The necessity to look for partners

At a time when, although broadcasting times are growing, production departments' budgets are not, but, on the contrary, are even decreasing in real terms, as is the case with WDR's school television, the necessity arises with more expensive projects to look around for coproducers. In the area of foreign languages that is not always easy, because a certain division of labour has developed in the course of time between the broadcasting stations. The Südwestfunk is responsible for French, the Westdeutscher Rundfunk for English, and the Bayerischer Rundfunk concentrates its funds either on adults or on younger children. Added to this is the all-too-human factor: whoever has an idea would usually like to put it into a film himself and wants others to have as little say as possible in how that is to be done.

Hand in hand with the development of the conception for the series "Beyond the Big Cities", we conducted talks with colleagues from other broadcasting stations on the possibilities and conditions of a coproduction. We soon managed to reach agreement with the Sender Freies Berlin (SFB) and the Hessischer Rundfunk (HR) on the contents and the form of the production. Thus a coproduction came about in which the SFB and the HR paid varying sums of money towards it, while the WDR bore the brunt of the costs and had the overall control of the project.

In 1989 the copyright for the series "Beyond the Big Cities" was acquired by the publishers Cornelsen Verlag, which also had a teachers' aid worked out – on the market since 1991. The impetus for the cooperation with the Cornelsen Verlag came less from the efforts to subsequently reduce the burden of the production costs – the production department's budget would not have profited from this – than from the wish to open up for the schools an additional source for obtaining our series through the publishing house's well-developed distribution and support system and to promote school television productions among teachers. The cooperation was continued in 1990 with the series "Youth Wave Radio", for which the conception was worked out jointly with the publishing house. For the series "Sally and Sam", produced in 1991, (songs, games, rhymes in English for children aged 7 – 10 years) the Cornelsen Verlag has said that it is very interested in acquiring the copyright.

Maura Hanlon

"Visual World" – Teaching Expressive Arts on Scottish Television

Introduction

How do educational broadcasters ensure that the programmes they produce relate closely to an ever-changing curriculum; reflect accurately good classroom practice, and can be used effectively as a valuable teaching and learning resource?

In a period of curricular change, where educational ideologies and policies have turned full circle in recent years, it has been difficult for all those engaged in educational broadcasting to produce programmes that accurately reflect the current teaching and learning requirements of pupils and teachers in the classroom.

In Scotland, where the primary curriculum has undergone 'consultative' change, i.e. from a fairly loose progressive framework as advocated in the Primary Memorandum in 1965, to a more structured and prescriptive approach as per the recent 5–14 curricular documents, there has been added difficulties in that educational broadcasters have had to distinguish between curricular innovations that are welcomed by teachers and curricular innovations that are not.

Unlike England and Wales, where legislation ensures that the new National Curriculum must be implemented, and where educational broadcasters have had a clear indication of curricular content and attainment targets on which to base their programmes, in Scotland, the non-legislative nature of the curriculum ensures no such thing. How then have Scottish educational broadcasters coped with this curricular limbo, and moreover, how have they coped with the bureaucratic machinery surrounding schools programming where planning procedures dictate that programmes are proposed and scrutinised by various committees almost three years in advance of the programmes being transmitted?

As Schools Liaison Officer with Scottish Television I have been closely involved in the processes and procedures that take place before and after a series is broadcast. At the formative stages of development it has been my responsibility to liaise with advisers, teachers and headteachers to determine their curricular requirements and to elicit which type or genre of programmes could be best used in relation to classroom practice.

Once a 'pressing' curricular area has been established, it is then necessary to identify key concepts and aims of the series. This is done in collaboration with an appointed team of core professionals. A first draft proposal is written which is then scrutinised by the Educational Advisory Committee (EAC) of the television company. Once the EAC has approved the proposals, they are then submitted to the Independent Television Commission (ITC), who scrutinise them in relation to the balance and breadth of programming at both local and regional level. At this stage the above procedure will have taken almost eighteen months.

After the ITC's seal of approval, the programme proposals lie dormant for almost a year, apart from when they are used for forward planning purposes and for prior publicity by way of the Annual Programme Booklets which are also written almost a year in advance. The actual series production does not begin until almost three months prior to the series transmission date, which is approximately three years after the initial series conception.

During a period of curricular consensus, this three-year period was clearly not a problem. However, during a period of curricular instability, when there has been such speedy ideological change, then clearly there is a problem in that the needs of teachers identified three years earlier will have been superseded by more pressing curricular demands. How then do programme producers cope with this dilemma, given that the initial programme proposals have been approved by several educational committees albeit three years in advance?

Background

It was at this crucial pre-production level that I was first introduced to the series "Visual World". The series had been planned as an Expressive Arts series almost three years in advance and just at the time when the government had proposed its new changes to the curriculum. The original television proposal advocated using an integrated approach to Art, Music, Physical Education and Drama as was used in a previous Expressive Arts series, i.e.: "Let Yourself Go". The series was aimed at 9 – 12 year-olds.

The dilemma I faced on reading the original proposal was that in terms of the curriculum, the proposal was out of date and did not reflect current curricular trends. The proposal was very much steeped in the 'progressive', less-structured framework which had been advocated in the Primary Memorandum of 1965. The proposal also advocated an integrated approach to the Expressive Arts where Art was not taught in isolation, but intertwined with the other disciplines, i.e. Drama, Physical Education and Music.

However, in my role as Schools Liaison Officer, the feedback I had received from teachers regarding the series "Let Yourself Go" was that in integrating the Expressive Arts and by including all disciplines in each programme, i.e. Art, Music, Physical Education and Drama, the educational thrust of the programmes had been lost. In other words, by trying to embrace the full range of Expressive Arts in each programme, the series had been over-ambitious.

Interestingly, the newly published curricular document, "Expressive Arts 5 – 14, 1991", did not advocate an integrated approach to the Expressive Arts. It did not state that the disciplines should not be integrated, but unlike previous curricular documents, it did not advocate a strictly integrated approach. Our series "Visual World" was mainly concerned with the visual aspects of Art and Design. On closer scrutiny of the document, a structured and systematic approach, offering for the first time relevance coherence and progression to the skills and knowledge underpinning Art and Design, were clearly apparent.

Not only was there scope for the differentiation of skills, techniques and processes across the ability range, but there was consideration of these specific skills in relation to special needs, cultural heritage, equal opportunity, the economy, mass media and performance, production and competition. The new curricular document was clearly developing into areas that previous documents had not ventured.

Objectives and target audience

But what was the reaction of teachers to the document? At various conferences and one-day seminars to herald its launch, the consistent message from teachers was that the new document on the Expressive Arts had been widely welcomed. The main points that emerged were that for the first time academic recognition and rigour had been afforded to the Expressive Arts with a clear framework showing a progression of skills and techniques and that the document had been based on the best practice gleaned from practising teachers the length and breadth of Scotland. Anxieties were however expressed about the lack of resources available for implementing the curricular guidelines especially in the fields of Drama and Music. Apart from this setback, the feedback from teachers was encouraging.

With this feedback in mind, it was decided that for our series "Visual World", we would abandon the integrated approach to the Expressive Arts, as advocated in the initial series proposal, and instead adopt a more direct approach by specifically targeting the field of Art and Design. We took the original proposal and with the help of an adviser who had served on the 5 – 14 Expressive Arts Committee, we gradually tailored the proposal to match the new curricular guidelines, and more importantly, to match the needs of practising teachers.

The aim of the series was to offer stimulus for Art and Design activities which would promote discovery and understanding of feelings and ideas in the classroom. The context for learning was pupils' natural environment. The pupils' skills would be extended using techniques such as visual recording by way of media and materials. The specific visual elements we wished to highlight in our series were those of line, shape, form, colour, tone, pattern and texture.

Structure and context

The series comprised five fifteen-minute programmes. The first programme proposed was an in-service programme for teachers to familiarise themselves with the content of the following four programmes. This in-service programme would include aspects of the new 5 – 14 curricular guidelines.

The following four programmes were entitled: "Woodland"; "The Sea"; "Animal World" and "The Royal Mile". The 5 – 14 document had divided each curricular component into three outcomes to ensure that the full breadth of activities and processes were experienced. These three outcomes were:

- Using Materials, Techniques, Skills and Media;
- Expressing Ideas, Thoughts, Solutions and Feelings;
- Evaluating and Appreciating.

It was decided that the structure of our programmes should reflect these three outcomes and, as was recommended in the 5 – 14 document, that where possible, pupils should be aware of the work of the world's great artists and the contribution they have made to the aesthetic well-being of mankind. Bearing these factors in mind, we structured the four following programmes thus:

Programme 1: "Woodland"

1. Introduction

The opening sequence would provide shots of wild places, open spaces, and public parks before leading into a woodland. As the camera moved closer into the woodland shots, the commentary would explain that the woodland has an atmosphere, magic and charm all of its own.

Cut to teacher and pupils exploring the woodland. Pupils find and collect specimens of woodland flowers, ferns, leaves and fauna. Camera shots focus on flowers, ferns, spiders' webs, sunlight in the woodland, etc.

2. Expressing thoughts, ideas, solutions and feelings

In the classroom a group of children express their feelings about the atmosphere, light, smells, sounds and natural charm of the woodland. Pupils describe flowers and fauna as, for example, delicate, pretty, soft, fragrant.

Another group of children using a woodland encyclopaedia and any other relevant resource books, identify and record the flowers and fauna on an identification chart made from an unused roll of wallpaper.

3. Representation of woodland in art media

Cut to how other famous artists have expressed their love of the woodland in various art forms, e.g. Jessie M. King and her woodland pictures of bluebells, ferns and campions.

Mix to Charles Rennie Makintosh's flower prints which were expressed in various art forms, i.e. in furniture, glass, walls and ceilings and in his overall designs.

4. Using materials, technique and skill

Back in the classroom pupils are shown working on a variety of processes:

- tissue paper/black paper for delicate stained glass work;
- pastel paints and chalks for simple and delicate woodland pictures;
- string, glitter and thread on black paper for spider's web constructions;
- flat, washed stones, collected from the woodland for stone painting and varnishing.

5. Evaluating and appreciating

Shots of finished pupils' work mounted and displayed around the classroom. Allow pupils to respond to their work positively, making personal judgements on how accurate or happy they were with their finished piece of work.

Programme 2: "The Sea"

1. Introduction

The opening sequence provides images of the sea accompanied by a song or poem. Mix images into a busy little fishing village with everyday people going about their business. Tight shots of tourist information, museum, etc.. Commentary on how fishing villages are more tourist-orientated now than they used to be.

Fade to an old fisherman of yesteryear leaving the harbour on his lobster boat. He voices over his working day, i.e. the sea, the boat, the weather, the fish he hopes to catch, the nets and the danger.

Mix to his wife. Establish her lifestyle and dress. She tells of the old days, the baiting of nets, etc.. Establish the visual quality of the fishermen's cottages and their atmosphere. Tight shots of cooking equipment, water faucets, how they used to wash, gut and 'smoke' fish.

Intercut to shots of a fisheries museum. Film a group of pupils showing a natural interest in the objects and lifestyle of the old time fishing village. Tight shots of patterns of nets, basket weaving, patterns of cloth in shawl, etc.

2. Expressing thoughts, ideas, solutions and feelings

Pupils discuss the demise of the old-time fishing village as a bustling way of life. They discuss how the tourist industry, by way of Tourist Information Centres, Fishing Museums, picturesque cafe/tea-rooms with parasols and hanging baskets and so on, has replaced the one-time fishing village economy.

3. Representation of fishing villages in the media

Mix to an advertising agency where the director talks through the marketing of a quaint Scottish fishing village to English and overseas tourists. Focus on the old-time fishing lady graphic with a crail basket under her arm. Widen shot to the row of fishermens' cottages and the harbour which provide the background for the poster and magazine campaign. More commentary on how to select the right words to accompany the visual art work for the campaign.

4. Using materials, technique and skill

Cut to the classroom where pupils are shown working on the following processes:

- a media group creating an advertising campaign to attract new visitors to a fishing village;
- a 3D group making a model of a fishing village using mesh for nets, weaving for baskets, etc.;
- a group of beachcombers collecting shells and driftwood and other items found on the shore and putting them together to form a seascape collage or a sculpture.

5. Evaluating and appreciating

Pupils evaluate their art and design work in relation to the sea and the fishing village. They discuss environmental issues in relation to tourism and also the positive and negative aspects of a quaint fishing village becoming a tourist 'hot-spot'.

Programme 3: "Animal World"

1. Introduction

The opening sequence provides images of animals in their natural habitats. Focus on the most striking features, i.e. the coat of a tiger, the texture of a crocodile's skin.

Cut to display of animal factfiles in a classroom. Pupils discuss distinguishing features of animals and their aesthetic qualities, i.e. feathers, fur, movement, camouflage, etc.

2. Representation of animals in art and media

Mix to the representation of animals in art since prehistoric times. Shots of:

- man's first paintings, i.e. cavemen's paintings of deer, etc.;
- striking tigers and elephants in Indian and Chinese art;
- glamorised kittens and puppies in greetings cards;
- cattle and sheep in pastoral scenes, i.e. Constable;
- military and royal portraits of horses and hounds;
- animals as represented in cartoons.

Pupils discuss the fascination animals have provided for artists through every century.

3. Expressing thoughts, ideas and solutions

Pupils discuss movement, texture, colour and line of animals. They are then shown working on the following processes:

- photographing and recording details of farm animals;
- charcoal sketching stuffed animals in a museum;
- creating greetings cards and posters with poster paints;
- oil painting mythical creatures such as dragons and the Minotaur;
- creating costumes and masks for an animal ball.

4. Evaluating and appreciation

Focus on the animal ball. Light on the texture, colour and tone of costumes. Widen shot to embrace other animal art work. Pupils assess their own work and each others.

Programme 4: "The Royal Mile"

The final programme was worked in the same structure as set out above. The context for art work was the Royal Mile in Edinburgh where the old cobblestone streets and closely-knit wynds provide a wealth of visual imagery. Also included in this programme proposal was the use of the portrait throughout history from Mary Queen of Scots to Andy Warhol's pop art portrait of Marilyn Monroe. The pupils are encouraged to develop their own portrait skills with the help of an artist. They are also given the opportunity to create a variety of portraits using the computer software FACEMAKER.

Conclusions

Unfortunately, this is where the frustrating part comes in to all those engaged in educational broadcasting. Once the revised proposals were approved by the Executive Producer, the proposals were then handed over to an independent educational producer, whose role it is to transform the written word into visual imagery. It is at this stage that I, as the Schools Liaison Officer, 'let go' of the series proposals.

I will only see them again once they emerge in televisual form ready for transmission. There is still work to be done on the preparation of the accompanying teacher's notes, but the real test is yet to come. The proof of the pudding is ultimately in the evaluation, and I believe that this is the most crucial aspect of educational broadcasting, for without it, how do broadcasters determine whether their programmes have reflected good classroom practice and can be used as a valuable teaching and learning resource?

Undoubtedly, careful planning is a prerequisite of a positive evaluation, however, in the world of television often what is planned is not what emerges as the final product. Bad weather conditions, lack of budget, and/or difficulties in locations, etc. can all interfere with what was initially planned. I am optimistic that the series "Visual World" will not only reflect the excellent practice of Art and Design in the Scottish primary, but will ultimately relate closely to the new curricular guidelines, and more importantly to the needs of pupils and teachers alike.

Michael Scarborough

"How we Used to Live" – A Case Study in History and Community Education

The idea that history teaching is about Kings, Queens, great battles and a chronology of dates runs very deep in Britain. Having been challenged through the Sixties and Seventies, this view has re-emerged in the last year at a time when the Government-financed National Curriculum Council published proposals for the future shape of history teaching.

Some politicians and newspapers were quick to publish the ten key dates which they thought every schoolchild should know – from the Norman Conquest and 1066, through the Battle of Trafalgar to the Great Exhibition. Others, however, were keen to widen pupils' understanding of history and to give them the skills to handle evidence and differing points of view.

These developments have rightly pushed educational television into a period of re-thinking. Is the provision we have made for the last 20 years to become suddenly outdated? Are the assumptions we have made about style, content and educational effectiveness to become irrelevant? We cannot know, of course, since we are in the middle of change, but it does seem a good point at which to assess ITV Schools' history output and take stock of a very successful past and a perhaps uncertain future.

"How we used to live" has been ITV Schools' flagship series for twenty years. It has embodied Yorkshire Television's approach to educational television, not only in history but across the whole curriculum.

When the series began, most history teaching was fairly unimaginative in its approach. It dealt essentially with national events and political decisions and ignored the experience of the mass of the population and the strength of local history. For most pupils history lacked any sense of excitement.

Television could provide information-based programmes, it had done so successfully, with a presenter leading pupils through facts, figures and key ideas. But there was a real sense in which this was little more than a series of on-screen text books. Yorkshire Television were convinced they could do more.

What television could do particularly well in the classroom was to stimulate pupils' interest in a subject and trigger an enthusiasm to investigate particular historical themes. It should do this in new and exciting ways, for children are connoisseurs of television; they have been brought up with it, know its conventions and techniques and have their own clear ideas of what is good or bad. If educational television does not match up to these expectations it will neither hold attention nor promote effective learning.

The task for the production team in 1975, that is when "How we used to live" began its successful run, was to present British History in a way that would meet the pupils' demands for exciting television and satisfy a teaching requirement for key historical information and ideas.

The decision was made – the programmes would **dramatise** the experience of living through a period of history. "How we used to live" would focus on domestic life and through that would draw pupils into asking historical questions and unravelling historical problems. Drama would help pupils become historians. Empathy with characters and dramatic situations would hold the pupils' attention and from it would come a wish to know more and to investigate in detail some aspect of domestic or working conditions, some feature of individual, social or political development.

Educational drama is not educational soap-opera; it is not sufficient to have interesting characters and a good story; "How we used to live" has to present accurate historical information and a balanced view of political and social events, but not be over-cautious about tackling controversial matters.

A series re-creating the Victorian years 1874 – 1887 featured two families, one a working class family facing the problems of poverty, unemployment and lack of education, and the other a family of a middle class doctor. Through these two families the drama could present a wide range of issues and yet avoid the stereotyping of two sides – the good and the bad.

It could present important historical ideas of continuity and change, as the family experienced 14 years of national and domestic events; it could explore the cause and effect of historical decisions. But it had to be good drama; pupils would not accept endless scenes in which characters merely exchanged the daily news, beginning each meal with "Have you heard what happened in Parliament today?" or "I have some very interesting facts to tell you." The trick of production was to embody this information in a dramatic moment so that viewing pupils would be eager to find out more for themselves.

A programme about the Second World War offered a good drama about the difficulties between an eleven-year-old evacuee from London and the family receiving him in Northern England. The evacuee, Arnold Potter, was a bit of a rascal and the viewing pupils loved him. By sharing something of his experience they were provoked into asking questions about the policy and organisation of wartime evacuation and, perhaps more importantly, they were encouraged into working in their local neighbourhood talking to elderly people about their wartime experiences. The pupils identified their own areas of research and followed them through.

There is a continuing debate about the educational role of empathy, those for and those against both have strong views, but in producing "How we used to live", we aimed to make empathy a tool of historical information and understanding. However good the drama, viewers can never fully experience what it was like to live in the past; understanding poverty is not the same as experiencing poverty. But when, in a series of "How we used to live" programmes, we showed the effect of the First World War on families and working women, pupils were stimulated to ask probing questions about roles for women, working conditions and the image of women.

"How we used to live" has won B.A.F.T.A. and Royal Television Society Educational Awards and this is obviously a recognition of its quality as drama. Young children can be very critical of poor television, if we are filming the First World War trenches, a Victorian woollen mill, or Victory celebrations in 1945 they want convincing locations and good activity; they will not be happy with second-rate material. They can, sometimes, be more critical than their teachers.

In past series, selection of a historical period has been the result of informal consultation with teachers and a producer's experience of what might form the basis of good history and good drama. We have never gone back further than the mid-nineteenth century because earlier decades present increasing costume and location problems. We have dramatised history as recent as 1970 for, though this might not be history to adults, for young pupils it is a focus for discussing both current and controversial issues; indeed one of the real strengths of drama is that it can bring controversial matters into the classroom without them being in any way threatening.

Once a period of history has been selected, the production team, working with a writer, a historical adviser and an education officer, would identify key themes and stories and round these shape each of twenty x 20-minute programmes.

With the implementation of the National Curriculum for British Schools we face a changing situation. If, in the past, we were able to choose our period of history and know that schools, eager for television resources, would follow it, now we would be foolish if we did not meet the requirements of a prescribed curriculum.

So, in 1990, when decisions had to be made about a new series we had to identify a period of history which was on the curriculum, following our own enthusiasms was not reason enough. But if this is, in some senses, a constraint on creative freedom it has also provided very useful guidelines. The curriculum document identifies key themes which pupils should explore and suggests the key skills which pupils will need if they are to think and study historically.

This major change in British Education will have an impact on our school television output. In the past we have transmitted twenty programmes of "How we used to live" through the Autumn and Spring terms of the school year, and viewing has been integrated into major historical projects which occupied pupils for most of the school year. There were those who said that the series had, by its popularity, become the history curriculum.

The educational influence of the series will continue to be great, but it will be different. Now we will resource clearly identified, one-term study units within the curriculum. These will focus on particular themes, e.g. "The Victorians", or periods, e.g. "1750 – 1900" and will be targeted at quite specific age ranges. The broad appeal of previous series may be a thing of the past.

There are changes, too, in the programme format and style – recreating 150 years of history demands something different from recreating domestic life through 14 years. In a new series transmitted first in 1990, we have combined eight dramas with two documentaries and in this way not only explore the experiences of a historical period, but illustrate ways of using historical evidence and developing skills of research and investigation.

Any television series is only one part of an educational resource. "How we used to live" can be viewed without the use of support literature and will stir pupils' interest in history. It can and sometimes is used as a break from other more structured work, but more commonly it is a starting point to highly imaginative and creative classroom activities.

Yorkshire Television has published teachers' notes which detail programme content and suggest a variety of activities for the classroom and out-of-school work. Pupils have organised research projects into the history of their local community. They have searched through local archives and newspapers, interviewed elderly people and investigated local streets, graveyards and public buildings.

In these ventures they have had the support of pupils' worksheets and notes. One year we published a diary in which they could record their own account of year by year events covered in the programmes. They could play the role of mill owner, doctor, parlour-maid or housewife and, through their own writings, understand and form judgements on past historical events and experiences.

But school classrooms are not confined to visual material and the printed word; information technology is well established as a teaching tool. With a "How we used to live" series made ten years ago Yorkshire Television developed a series of computer role-playing exercises which extended learning beyond the television programme. Pupils could, in these programmes, share the experience of a family of five living through the wartime years in Britain.

After viewing they could use the computer software, in small groups, to prepare a family budget and discuss their spending priorities. Children argued fiercely, probing deep into questions of how much a family might have spent on food, on clothing, on fuel or on leisure. Between programme, computer software and pupil we achieved a level of interactivity. Now, with the latest technology "How we used to live" could be very suitable material for full interactive videodiscs.

In many ways 20 years of producing "How we used to live" have been years of partnership. This has not been a partnership in the sense of a co-production for Yorkshire Television has always financed this series itself, but it has been a partnership in developing the most effective use of the series. There have been the obvious links with the educational profession which has secured curriculum advice and classroom relevance, but there have been other partnerships.

Financial and organisational links with a major bank allowed Yorkshire Television to mount a nation-wide competition for which schools organised and presented historical studies of their own communities through drama, documentary, art work and video. The high standard of these competition performances, which were presented in the studios at Yorkshire Television, and later formed the basis of a programme, were a measure of the stimulus to imagination and creativity which came from the programmes.

There has been one other productive partnership, with the local museum service in Yorkshire. The last five series of "How we used to live" have all been supported by a museum exhibition which has toured northern museums for the three years in which each series has been transmitted.

These exhibitions have been visited by many thousands of schoolchildren who have come both individually and in organised school groups. They have been able to study, in detail, artefacts which they may have glimpsed only for a minute in the programmes. Because the central section of each exhibition was a reconstruction of a location from the television series, visiting schools were able to plan work which drew together themes from both resources. The exhibitions have been successful examples of how the experience of classroom television can be extended to become active learning.

If we are to accept the new resource jargon, what schools are looking for are interactive multi-media packages. Through twenty years of transmission, "How we used to live" has moved a long way towards this, and future developments will certainly include interactive disc technology. But enthusiasm for such variety of visual and printed support should not make us forget that young pupils will still sit in front of a television screen and the images they see must excite their enthusiasm for historical study, must present some basic information on which they can build understanding, and must encourage the development of skills of investigation and the evaluation of evidence. The visual image still has a key role in the presentation of history.

Elisabeth Tworek-Müller

German Contemporary History on School Television – Remarks from a Teacher's Point of View

Preliminary comments

This article is a product of real-life experience – from the point of view of a teacher who for several years in succession has been working on the subject-complex of "National Socialism" with schoolchildren. It provides a more or less subjective look at everyday school life and goes into the problem – taking this subject as an example – of how school television broadcasts can be used for contemporary history lessons, the problems one encounters when doing so and which changes would be desirable. In the preliminary work research was not carried out in the production departments nor was direct contact taken up with 'film makers'. The film examples were also selected more or less at random. Thus quite a few ideas could be obtained from practical experience.

Defining a position

Schoolchildren have a right to be informed thoroughly and in detail on the period of National Socialism, a time which had devastating consequences not only for the Germans but also for the whole of Europe. But there is hardly one pupil who approaches this historical-political, so emotionally charged subject completely unbiased and without personal feelings. Many adoloscents believe in "popular legends" about the time of National Socialism.[1]

The origin of these "legends" is often fragments of recollections, which are not understood and vaguely remembered, from 'time witnesses' who are still alive, usually relatives, with whom the young people have emotional ties. They frequently emphasise the so-called "good points of the Third Reich" (discipline, quiet and order, solution to the unemployment problem etc.) in isolation.

In almost every class there are pupils who are especially biased in this way, have one-sided interests or one-sided motivation or even defend radical right-wing positions. In the actual lesson these pupils frequently make their presence felt and dominate the class discussion, sometimes through provocative remarks or questions with the intention of unnerving the teacher or putting him to the test. There is also a risk that these pupils, if they have the necessary social position within the class, dominate the opinion of the others and influence them with their views.

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[1] Eike Hennig, These zur deutschen Sozial- und Wirtschaftsgeschichte 1933 – 1938, Frankfurt/Main 1973, p. 32.

Here the teacher's whole personality is challenged. Apart from an intensive and methodical preparation of the material for the lesson, great pedagogical skill, sensitivity, command of the situation and patience are necessary to counteract developments of this kind. Ignoring or suppressing unpleasant utterances is just as dangerous as becoming involved in endless discussions on individual questions. Under certain circumstances, talking to individuals or groups outside the lesson is a better way of making any headway.

Other pupils, conversely, tend rather to be bored by the subject. They are convinced that the atrocities during the National Socialist time do not concern them because they were not personally involved in them. They consciously do not want to come to terms with them, and they also feel "sated" by television programmes, articles, films etc. In order that this uninterested attitude is not further intensified in the classroom, it is absolutely necessary to avoid expanding the subject too far and, above all, making excessive use of the media. A careful selection of the media offerings, oriented to what the pupils can cope with and their interests, is essential.

To counteract repression, to work towards a feeling of responsibility without taxing the pupils emotionally and mentally – that is a permanent challenge for contemporary history projects in the lesson, especially if you are working with school television.

Relation to the present

Bringing the past to mind means putting a matter into an overall historical context, showing lines of development and making it clear that – and how – the problem concerned still determines our life even today.

Peter Wapnewski once wrote on this: "If history is not confused with what merely was, if history is active memory, catching up with the past, if studying history means grasping a matter in its assumptions and in its consequences, if . . . history is understood as the foundations of the present at any given time, as a chance to comprehend the present in the light of the past and to conjecture what the future holds, then history is the most genuine safeguard against being misled by striking delusions and overpowering ideology and against the suggestive powers of the hollow promise of healing."

On various occasions discussions still take place on the situation in the National Socialist state, on the background, the role of the individual, the question of guilt today, the relations to other peoples, especially to Israel, that weigh upon our minds. It should be the aim of the history lessons always to make the pupil aware of the fact that an intensive occupation with the past and with the time of National Socialism in particular can provide a key to our understanding the present and gaining an insight into the future.

Some successful examples from school television programmes on the subject of "National Socialism" to illustrate this thought and to give practical stimuli:

The introduction to the film "Lidice – a Village in Bohemia"[2] establishes in our mind a connection between the rule of terror of the German occupation power in Czechoslovakia during World War II and the expulsion of the Sudeten Germans from their homeland. It thus throws a bridge across from the immediate effects of the occupation policy to the far-reaching consequences that can still be noticed today. The introduction says:

> "This film describes a war crime. But it would also like to contribute to a better understanding of the events which have gone down in German post-war history as expulsion."

This is a gesture, an attempt to establish a context of understanding, to go a little further in order to track down historical truth. A thought-provoking preliminary remark of this kind – discussed controversially – is suitable for involving the pupils with special intensity in the subject.[3]

In the film "His Munich – Hitler's Capital of the Movement" (1991) Alexander Fuhrmann also shows the pupils the consequences of National Socialist policies. The megalomaniac and pompous building projects which Hitler pursued in Munich are drastically contrasted in the film with the – in the end disastrous – effects of National Socialist policies on the town. The commentary establishes an internal connection between two different historical sets of facts and triggers associations: "For the 'East-West Axis' a building period of ten years was envisaged. When the work was supposed to begin Munich no longer existed." A photograph of Munich destroyed by bombing raids follows the text and speaks for itself.

Instilling values by education and upbringing

Even if today only few are still convinced of the National Socialist 'Weltanschauung' in its entirety, many a remnant of this ideology does continue to live on.

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[2] BR 1987; Script and direction: Alexander Fuhrmann, production: Traugott Krischke.

[3] This sentence met with massive protest from the expellees' associations. The introduction had to be dropped from the repeat transmission.

National Socialist ideas were already developed and disseminated towards the end of the 19th century. Precisely because the National Socialist state misused traditional values like "home", "nation", "doing one's duty", "spirit of comradeship" and "discipline" and because it reinterpreted achievements of German spiritual and cultural history to its own ends, it still remains difficult to deal unemotionally with the German past.

A successful example of how to present the abuse of the ideals and values of a whole generation in a judicious and sensitive way and thus how to provide orientation for the future is the film "Hitler Youth".[4]

When it is used in the lesson, the pupils have an opportunity to identify with their peers shown in the film: tent camps, sport and fighting games, campfire romanticism and technology were as fascinating for young people in those times as they are today. But the identification is subtly broken by repeatedly and unobtrusively mentioning and showing the negative aspects as well: drill, compulsion, subordination and finally the actual aim, the consistent preparation for fighting in the war as "cannon fodder'.

Quite generally, when a certain historical epoch is treated in the lesson, the question of the education and upbringing prescribed by the state is especially suitable for pointing out fundamental features of a regime. "Education" as a subject for the lesson helps to form the awareness of the pupils, who learn to reflect on their own existence in their society in the comparison with other forms and aims of education and upbringing. Knowing the dictatorship of National Socialism with regard to education and upbringing contributes – as long as the generation it moulded at that time is still contemporary with the young people – especially to understanding their own family origin and the older members of society who were thus formed by it.

In this respect the film "Hitler Youth" indicates exemplary ways of doing this alone through its selection of material suitable for adolescents, supported by the clear division into chapters (e.g. "Giving orders and obeying", "The ideal Hitler boy", "Means of persuading'). It provides the pupils with criteria for comparing their own upbringing with the upbringing in National Socialism. The titles that appear at intervals form a kind of "railing" and divide the complex subject into manageable portions. The breaks also give the teacher a chance to interrupt the film or to deal with a single aspect in isolation.

This successful treatment and structuring of the complex subject "Youth in National Socialism" could serve as an example for school television broadcasts on other historical epochs. Productions like "Education in Absolutism", "The School in the German Empire" or "Youth in Post-war Germany" would be helpful.

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[4] BR 1982; script and realisation: Edeltraut Glaser, production: Helmut Dotterweich

Exemplary conduct

Acts of neighbourly love, of sacrifice and bravery were performed in the shadow of the tyrannical state. In retrospect they have become symbols of that "other Germany" and can serve as a warning and outstanding example of human conduct.

The film "In Bonn at that Time. The 'Crime' of Maria Kahle"[5] shows the fate of the Protestant wife of a professor in Bonn who on the day after "Crystal Night" spontaneously provides Jews affected by the pogrom in November 1938 with neighbourly help and for doing so has to endure severe harassment at the hands of the state organs. Maria Kahle only has an obligation to her conscience, she gives humanitarian help and for doing so is willing to put up with the threat to her very existence and that of her family.

The film looks at the problem from an unusual angle: it shows "resistance" on a small scale, without any background of political ideology, unorganised and non-violent, out of purely moral responsibility for one's fellow men. Present-day pupils are thus helped to identify with and find access to the subject. They are motivated by the selection of the people involved – they are introduced to a Christian family consisting of several members – and by a comprehensible everyday act which is severely punished.

Apart from this, the film creates immediacy and concern through excerpts from the professor's wife's diary and by the son's statements. The film can therefore contribute in the lesson to building up positive forms of conduct, such as tolerance, humanity, an awareness of what is right and the courage to stand up for what one believes in.

Questioning witnesses of the time

Questioning time-witnesses of National Socialism does indeed offer access of a very special kind to the world they experienced in the recent past. "So that the past does not evaporate in the contradictions of its interpreters and legends do not become more real than reality witnesses of the time enable those born after them to secure their evidence. As long as they can."[6]

Nothing seems to be more authentic and at the same time more moving than the recollections of those who were there as prominent figures in public life or as so-called average citizens. Their descriptions with the occasional digressions and anecdotes open up a person-related, emotional access to history. They give an insight into the everyday life of certain strata of society, show the connection and reciprocal interaction of public and private spheres in a political system and make it possible to experience and relive historical events and developments from the examples of individuals.

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[5] WDR 1988; script and direction: Gisela Heinen; production: Wolfgang Luning.

[6] Lattmann, Dieter: Die Erben der Zeitzeugen. Wider die Vertreibung der Geschichte. Frankfurt am Main 1988; p. 7.

For use in the lessons, however, such programmes are not entirely without their problems. "Nothing is . . . more dangerous and more likely to lead onto difficult ground," warns Helmut Dotterweich, "because the same laws apply to this kind of oral tradition as to written records. Their relativity and their reliability have to be examined, critically analysed and arranged in the overall context, in the same way as a medieval document."[7]

In the meantime, the experiences in the period of National Socialism and the time of the questioning are separated by several decades. The time-witnesses do not in many points, reflect the original attitudes and thoughts. Apart from inexactitudes, contradictions and confusing the past and present, the knowledge of the continued course of history and its reflection is bound to find expression in their accounts. That is why it is essential to relativise, supplement and compare these time-witness accounts, which are always affected by subjective considerations.

How reports by witnesses of the times can be usefully used without falsifying history is shown by a WDR history series. In the four-part series "Women in the Resistance"[8] four women provide insight into their lives during the Nazi dictatorship, talk about their resistance to the regime and how this involvement shaped their later life. In each part, one time-witness reports her experiences. The choice of persons is deliberate: the four women differ in origin, political attitude, character, readiness to make sacrifices and survival strategy. They throw light on the subject from completely different perspectives. What they have in common is their courage to practise humanity in an inhuman time.

The time-witnesses give a precise impression of the many aspects of anti-fascist resistance. As they are asked roughly the same questions and each part is similarly constructed with different sections being divided up by headlines, the statements made can be compared, and taken together they result in a largely objective picture of the past.

The interviews are also supplemented by documentary inserts on the historical background at that time and by information on the people involved and the family circumstances. When further explanations or corrections are required a commentary briefly interrupts the conversation.

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[7] Dotterweich, Helmut: Geschichte zwischen Reform und Ideologie. In: Schulfernsehen Nr. 6, Februar 1985, p. 70.

[8] WDR 1990; script and direction: Gretl Brand; production: Ursula Schluda.

This means for the lessons in contemporary history that the pupils thus gain an insight into the unmistakable character structure, the motivation and political attitudes of the former resistance fighters. They are stimulated to consider whether women, because of their particular sex-specific role in National Socialism, were able to develop different strategies and forms of resistance from the men.

Perhaps school television should therefore direct greater attention to longer reports by time-witnesses, give them more scope and, in doing so, also present, concretely and in detail, the personal milieu, the origins and socialisation of the person reporting. For there is hardly any substitute for time-witnesses' clearly formulated accounts with useful content and well-arranged thoughts.

They should give the pupil time to acquaint himself with the person presented, so that he obtains a comprehensive picture of the personality and identification is made easier. As a variation on the single-track interview a group discussion with several time-witnesses might also be conceivable.

Experience in the lesson shows that using broadcasts of this kind presupposes a relatively good knowledge of the historical background. The pupils have to be intensively prepared for the subject, so that they distinguish between what is important and not important, between impressions and facts in the subjective accounts.

Here much depends on the quality and the detail of the written material for the teacher's preparation, since in everyday school life there is frequently insufficient time for imparting knowledge and for reports by witnesses of the times; the syllabus is so extensive that use of the media has to be restricted.

The limitations of television

A problem of a general kind, which, however, plays an important part, particularly in dealing with National Socialism, is preparing the subject according to the age of the pupils and adapting it intellectually.

The medium of television carries on one-way communication and is thus generally not open to the viewers' spontaneous needs, interests and matters of concern. The teacher is different: he can react flexibly in the classroom discussion, he knows what knowledge he can take for granted and where he has to give preparatory information. In planning his lesson he can and must adapt himself to the historical and political judgements which the pupils themselves introduce into the discussion on National Socialist ideology.

A school television broadcast cannot do this. It is a medium produced in advance by outsiders, which at best addresses a notional, anonymous average pupil in a certain age group with an average readiness and ability to learn. Quite a few pupils often regard superfluous information as tiresome and excessively didactic, and others quickly lose interest and motivation when they feel that they are overtaxed by the subject and have to cope with too much compact information at once.

For the programme-makers, however, the dilemma consists above all in, on the one hand, wanting to impart historical facts without making excessive intellectual demands on the recipients, but, on the other, taking into account the duty to be historically accurate and not to provide stereotype pictures. For a school television programme he has to be in a position and prepared to jettison petty differentiations and nuances and to concentrate and reduce the material to its broad outlines.

Sometimes, however, one has the impression that the producer or author who has intensively worked up a subject over a longer period of time is no longer capable of imagining that his viewers only have very little previous knowledge. Not infrequently statement follows statement without any attempt to introduce any rhythm into the text or structure it with assertions for which reasons are then given. Central key statements are not especially emphasised; only someone well versed in the subject anyway can judge how important they are. Crucial evaluations are contained in subordinate clauses.

The school television production departments are apparently well aware of the problem, as Erika Jobst reports:

> "School television should, therefore, be so structured that it grips the schoolchildren from beginning to end. (. . .) The information must be clear and intelligible. It must be prepared specifically for the target group, not just translated into visual images but structured so that the message comes across (. . .). What is superfluous must be left out, what is exemplary must be preferred to what is encyclopaedic, verbalisation must take place in age-specific terms, the strong effect of an identification potential must be taken into account, and people with their activities, with their problems, must be shown as much as possible, . . . but everything, as stated, clear and intelligible. And since what is simple is, as we know, difficult, since the art lies in leaving out what is unimportant, but since, on the other hand, trivialities often provide the spice, produce tension, motivate, it is not easy, even by using the medium of television, to provide ideal programmes for every teacher."[9]

A television programme certainly has the potential to free itself from the dilemma of one-way communication – at least in part – by being structured in small steps and divided up into complete and distinct units. In this connection clear breaks and chapter headings are helpful. They allow the teacher to interrupt the film, to clear up questions of understanding and to give additional tips. He can guide the learning process individually and determine the learning pace by repeating single chapters or discussing them in isolation.

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[9] Jobst, Erika: Es recht zu machen jedermann, ist eine Kunst, die niemand kann – Die Wünsche der Lehrer und Möglichkeiten des Schulfernsehens bei Sendungen zur Sozialkunde. In: Schulfernsehen No. 6, Februar 1985, pp. 77 – 78.

Generally speaking the individual components of school television broadcasts can now be used much more flexibly and effectively in the lesson than a broadcast in its entirety, which largely predetermines the further course of the lesson by reason of its length alone.

My experience also shows, however, that such a use of school television should be made with extreme caution, because the programmes are conceived as complete units from the dramaturgical point of view, i.e. dismembering them detracts from the experience of the film as a coherent entity.

It is probably most profitable to make varied use of the medium – the whole film to consolidate or sum up and another time in sections to work on partial objectives – each time orientated to the needs and interests of the pupils, according to the proven teaching principle which calls for a rhythmic change in the forms of work.

Excellent for use in the lesson are also the questions which are asked at the beginning of an instalment or are superimposed as a title between sections and thus structure the film. On the one hand, they encourage the pupils to think and thus have the effect of stimuli for active learning and, on the other, they support the teacher in preparing the lesson, for example in wording an assignment.

Films as documents of contemporary history

Visual education in our days is steadily gaining in significance, since pictures are gradually ousting words as a form of communication that is becoming more and more important. For this reason instruction orientated to the needs of society should make the pupils familiar with vocabulary and language competence, but also with the meaning and the use of visual "language".

A useful contribution to this is certainly made by working with original films from National Socialist times, be they propaganda films ("Triumph of the Will" by Leni Riefenstahl), newsreels, feature films ("The Hitler Boy Quex") or agitational films ("The Eternal Jew"). Since such films were produced specially for propaganda purposes and consequently tend to cover up rather than illuminate the historical background, the pupil must be supplied with criteria for assessing them which are helpful in deciphering and interpreting agitational picture material.

It is to be hoped that a school television programme will be made which deals fundamentally with the various aspects of the origin, picture language, intentions and effects on the public of National Socialist propaganda films. It could introduce pupils to the way propaganda films are made and impart basic knowledge for assessing them.

Hardly any other historical source has such an appealing, motivating and sometimes even fascinating effect on pupils as films. When, for example, Hitler at the 1934 National Party Congress in Nuremberg demands from the youth absolute devotion even until death and we see the emotions in the faces of the young people, when documentary films show the "March to the Führer" of young people from all over the German Reich to the National Party Congress in Nuremberg, when newsreels glorify arms production, then it becomes clear that the printed word cannot even approach the impression conveyed by films.

It is precisely for this reason that it is necessary to deal with this film material in the lesson in a cautious and considered way. For the common experiences of the Hitler Youth, offered loudly and vociferously by the film and convincingly presented in pictures, the fascination of colossal mass meetings or Hitler's public propaganda appearances do not fail, even today, to have their dramaturgical effect.

For this reason the teacher has to carefully consider the methods of his didactic approach: he either draws his pupils' attention, from the beginning, to the suggestive effect intended by the film material, or after the film has been shown he takes up the attitude of his pupils, which under circumstance is one of positive consent, and in this way helps them to gain an insight. Here, too, the nature of the support material is of crucial importance.

The propaganda material in the above-mentioned film "Hitler Youth" is selected and purposefully assembled into a whole with particular care and consideration. The original film material is integrated into the programme in such a way that it becomes obvious what agitatorial intention the client and the producers were pursuing. Selected scenes from feature films, excerpts from the newsreel "Young Europe" specially produced for young people and from films commissioned on subjects like "Country Service" or "National Political Educational Institutions" make the emotional disconcertedness of a young viewer in the thirties intelligible.

Judicious treatment is called for above all in the case of film shots from concentration camps, ghettoes and massacres in the occupied territories. As a teacher I repeatedly had to weigh up whether the class could intellectually and psychologically cope with the film I had planned to show, because these pictures of emaciated people, of torture, mass shootings, mass graves, piles of corpses – as shocking as they may be – do not always have the intended effect of arousing pupils and immunising them against the atrocities of a tyrannical government.

So-called "shock didactics" sometimes has exactly the opposite effect. Quite a few pupils felt such films, especially when they are confronted with them en masse, to be a psychological burden, some even to be an annoyance imposed upon them, others reacted partly with reservation and suppression mechanisms and partly with voyeuristic curiosity and, at times, with fierce resistance and counter-provocation.

According to my experiences, it seems to be illusory to try to achieve more than only short-term emotional consternation by merely presenting horror scenarios. What is needed in order to cognitively process and emotionally come to terms with the past – aiming at a transfer into the present and the future – is to come to grips intellectually with the holocaust, and for this purpose the distressing horror pictures of the concentration camps provide an undoubtedly necessary impetus. But a rational, sober discussion of the roots, causes, phenomena, consequences etc. of tyrannical systems in earlier times and today must be added.

In any event, as a teacher one can only use shocking, emotionally arousing film material in doses and with careful consideration, and must cautiously put the pupils in the right mood with regard to their emotions and the content of the film. If the general feeling in the class is not suitable one must be prepared not to show films of this kind and resort to other sources.

Support materials

The importance of the written materials accompanying the school television programme with detailed advance information for the teacher has already been pointed out. The broadcasting stations provide for their school television transmissions what in some cases are quite excellent supplements, which a teacher can profitably use even if he does not show the film they deal with. They mostly contain information on the structure, content and objective of a programme. At the same time they give encouragement with very apt suggestions for actively processing the material and transferring it to areas which it had not been possible to consider in the programme itself.

What is more, an article in the supplement can make up for shortcomings which unavoidably resulted from the production situation when the film was assembled. Providing these extensive materials (sources, texts, working assignments, work sheets) enables the teacher to use a programme in the lesson efficiently and without much work on his part.

From my point of view, the way in which Bavarian Television built up the "Suggestions for Structuring the Lessons" in the accompanying magazine "Family and School on Television" turned out to be extremely useful for the history lessons.

Several suggestions for the initial use place the film in a larger thematic context. Possible connections to the generic subject of the lessons and questions on the pupils' previous knowledge are offered before the pupil is confronted with new information through the film.

In the section "Course of the Lesson" the teacher is given helpful tips on the stage of the lesson at which he can use the film – whether it is more suitable for working out, consolidating or summing up – and on what he should pay special attention to when showing the film. Thus the information accompanying the film "The Warsaw Ghetto" (BR, 1989) pointed out that the film material was especially shocking, so that the teacher could emotionally prepare his pupils for what was to come.

The "Work Assignments" break the film down into small steps in the form of questions, thus making it possible to thoroughly work on the film material individually or in partner or group work. Apart from this, the questions offer a useful framework for revising the material. The section entitled "Consolidation and Contemplation" gives suggestions which go far beyond merely imparting knowledge. The pupils are induced to think about and question the subject matter, something like this: Why did most of the Jews accept their fate, without any resistance, in spite of their extremely dangerous situation in Nazi Germany? Why did the National Socialists present the Jews as victims of the people's anger?

The section "Relating to the Present and Transfer" establishes links to the present time and points out the timelessness of quite a few phenomena. The schoolchildren are meant to understand why the material offered is worth knowing. Overall connections are established, attention is drawn to comparable phenomena in our times, and the question of the possibility that undesirable historical developments could be repeated is broached.

Feature films to liven up history

The vast majority of children and adolescents today grow up, more or less from the cradle, beside the television set as a medium that is constantly present for entertainment or information. Moreover, they become accustomed to a whole ensemble of media, from the cassette recorder, Walkman and CD player to television and computer games.

School television programmes should consequently match the pupils' viewing habits and entertainment requirements if they do not want to be considered old-fashioned and stuffy. That is why excerpts from feature films should – in spite of all kinds of misgivings – be integrated into documentary history programmes on the Third Reich more frequently than hitherto.

As we know, feature films can decisively shape and change the historical awareness of the viewers. The American TV series "Holocaust", transmitted on German Television in 1979, is an especially convincing example of this. The Hollywood filming of the fate of the Jewish family named Weiss during the Third Reich produced in many Germans feelings of consternation, helplessness and indignation at the fact that such a thing as the Holocaust could have happened in the name of the Germans. What many documentary films had previously only managed to do in a rudimentary way was achieved by a series which was rather mediocre as far as its artistic and aesthetic aspects are concerned. The television event scored fantastic audience ratings of as much as 40% and set off a fierce public discussion.

Why should school television not avail itself of this knowledge as well and use feature films within the framework of productions for the history lesson?

Such broadcasts could certainly satisfy the demand which producers at the Bayerischer Rundfunk make of history programmes:

> "The paramount aim when structuring programmes was always the intention of arousing understanding for connections and the conditions of human existence. (. . .) We believe that what interests human beings most is the human being."[10]

Outlook

Thus, for example, the television series "Löwengrube", produced by the Bayerischer Rundfunk, on the life of a policeman's family in Munich from the 20s to the 50s could be prepared for media teaching by school television. On the basis of certain film excerpts, especially suitable for the lesson, a new style of programme could be created.

The point of departure for this way of considering history would be the real-life human being in his day and age. The reality of his life could help to show "great history" (war, inflation, unemployment), how he experienced, suffered and understood it and sometimes hardly coped with it; how his fears and desires shape history by encouraging political developments, if not triggering and directing them.

Source texts, statistics and research literature would – in the lesson – no longer be ends in themselves but would again become what they actually are: aids to explain human thought and action as conditioned by the times.

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[10] Dotterweich, Helmut, ibid, In: Schulfernsehen No. 6 Februar 1985, p. 70.

Rudolf Holzgräber, Horst Neumann

"Questions on German History: 1945 – 49" – A Series Produced by Berlin School Television

Questions on recent German history arise which are of importance for young people, especially in Berlin – both in the west and the east of the city. For this reason the obvious thing to do from the very beginning[1] was to work out a series of programmes and the relevant support material for Berlin School Television in which special emphasis should be given to preparing the following three subjects for the lesson:

- the historical causes and development of the division of Germany;
- problems of the two German states;
- information on what was the German Democratic Republic.

The initial steps were taken in the 70s in cooperation between the West Berlin broadcasting station Sender Freies Berlin (SFB) and the Berlin Regional Film Service with the 14-part series "Questions on German History". Here it was a matter, among other things, of critically analysing the use of film sources ("The Film as a Document"), of the controversial treatment of the time after World War I, another turning-point in German contemporary history ("1918/19: The Missed Chance or the Unwanted Revolution?") and finally of the question: "Who Divided Germany?"[2]

Presenting historical processes in school television

The presentation of historical developments with the aid of film documents does not, at first sight, appear to be especially difficult or problematical. People believe they know how the two German states came into existence if they are familiar with the film documents. And yet such a project confronts those concerned with a number of problems:

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[1] The SFB began transmitting school television programmes in 1970.

[2] These three broadcasts on this subject were produced by the SFB in cooperation with Chronos Film GmbH Berlin in 1975/76 and have been transmitted several times since then; they have been in the video lending library of the Berlin Educational Film Service since 1978/79.

- How many and which film documents can the author select?
  (In Berlin School Television a programme does not last longer than 25 minutes.)
- Which film documents exist and are accessible?
  (The author can either stipulate on which statements he requires film sequences, or he can select from the archive material what he wants to use. The possibility that he cannot obtain some film documents for various reasons cannot be ruled out.)
- Which functions is the commentator to take over?
  (If he remains close to the picture, he runs the risk of saying what the viewer can see anyway. If he adds to what cannot be seen on the screen he might widen the gap too much between picture and text.)
- What and how much information can the target group aimed at absorb and remember?
- Should a talk be illustrated or should pictures be connected by a commentary?
- How must the producer arrange the individual sequences in consecutive order so that the impression is given that the film is a complete entity? What part do the principles of film aesthetics play?
- Which author should be asked to write the commentary?
  (This choice already largely lays down the direction the broadcast is going to take!)
- What should the function of the programme be? Should it emotionally effect the viewers rather than provide matter-of-fact information? What does such a decision mean for giving the viewer balanced information? To what extent may and must a presentation of historical facts which is adapted to the media be one-sided if it is going to be effective?

These and other problems have induced the SFB to have historical processes described by more than one author. In the case of the series "1945 – 49" the services of two publicists were obtained who had at least partly opposing views: Sebastian Haffner and Matthias Walden.

Berlin School Television is orientated to the context model. It consists of programmes, support material and lessons which are related to and complement each other. The building blocks for lessons with this series of programmes in history, political education and German from the 9th class are:

- the preparatory subject lessons which impart the necessary preliminary knowledge for assessing and interpreting the film documents,
- media information on the importance of historical picture and film documents,
- the three television programmes on the subject,
- the workbook on the school television series,[3]
- history books, source collections, audio-visual media and
- the lessons for evaluation, which critically examine all the material and opinions.

School television according to this model should enable teachers and pupils to recognise from a concrete example from our contemporary history how our society is constantly – at certain times especially rapidly – changing, how such a period of time is reflected in film documents and how differently these events can be judged.

The intention of the series and the support material is to inform the viewer and make him analyse and query. They presuppose a critical viewer who is able to recognise and explain manipulations in the presentation of societal processes through the medium of film as well as differences in the explanation of these processes.

The complementary lessons are planned as an integral part for inclusion in the context of this teaching unit. In these lessons, before beginning this teaching unit, the pupils should acquire the knowledge that historical events – as unexpectedly as they appear to occur – are as a rule influenced by conditions which, in some cases, have been developing over years, decades or even centuries.

The events of the years 1945 to 1949, too, can only be understood and judged if the structures of German society at this time and before this time are known and can be linked up with the international situation.

The school television series "1945 – 1949" consists of the following three programmes:

- "Four-power Germany"
  (a standpoint programme by Sebastian Haffner)
- "The Division of a Nation"
  (a standpoint programme by Matthias Walden)
- Discussion of the theses.

"Four-power Germany"

Sebastian Haffner describes the historical development in Germany in the years between the unconditional surrender in 1945 and the founding of two German states in 1949, especially from the perspective of international affairs, and above all from the position of the four occupying powers. His main thesis is that the division of Germany was a consequence of world-wide differences between the two superpowers, the USA and the USSR, and not the consequence of a joint policy already laid down before the end of the war. The initiative for the division of Germany came from the Western powers.

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[3] Work books for this school television series were issued by the Berlin Educational Film Service and were published by the Colloquium Verlag, Berlin.

He makes his standpoint clear by taking his bearings from the policies of the Allies in selecting the film documents. The behaviour of the Germans in each case only reflects the interests of their occupying powers, he believes.

"The Division of a Nation"

Matthias Walden describes the situation of the Germans in the years between the end of the war and the division in 1949 from the perspective of the Germans. He starts from the assumption that the Soviet Union first supported a political development in the whole of Germany which pursued its interests, but changed its plans when it found that it was unable to push through its intentions against the will of the Western powers and of the Germans. It therefore contented itself with dominating its zone of occupation and brought about the temporary division of Germany.

In this broadcast he concentrates on the deprivations of the Germans in the first post-war years and quotes in particular examples of films which furnish evidence of the Germans' struggle for freedom and democracy.

"Discussion of the Theses"

In the programme which followed a presenter asks the two publicists what the reasons are for their different standpoints. He gives them both an opportunity to describe and critically analyse the interests that led to their views, their criteria of selection, their biography and their method of working.

The viewer is meant to realise through the confrontation of opinions that even experts can evaluate historical events differently.

The discussion on television is not intended to replace the critical discussion on the two standpoints in the lesson. That is why this broadcast asks questions of German history and gives no binding or final answers.

On standpoint broadcasts

The historical film documents that were used serve not only to impart historical knowledge, but they are also suitable for the discussion of certain media-related aspects:

1. How is reality presented in film documents, and how does this "reality" differ from the reality that is conveyed by history books?
2. The moving film pictures can report on past conditions and changes in society with great clarity but also with particular suggestion and, possibly, distortion. Which events do they prefer to show? What is completely lacking?
3. Many historical films (not just film documents) have direct and indirect political effects through their content, form and objectives by influencing the viewers' expectations, valuations and behaviour. Which sequences show up this manipulation with particular clarity?

The fundamental learning aim of the lesson with this series of broadcasts is the knowledge that describing historical processes, i.e. societal processes, is not possible without evaluation. But pupils and teachers should not try to ascertain which of the authors has interpreted history "correctly". The viewer should not be forced into the role of a referee in a match of persons and arguments. But he should learn to recognise where and for what reasons somebody uses different standpoints or standards.

The authors have tried to present their positions as clearly as possible. The two broadcasts do not contain entirely the same picture material. Each author was given a chance to select the sequences he considered important. Yet there are some film documents which both authors use and comment on differently. The discussion on their standpoints has chiefly concentrated in most school classes on these parts which are directly comparable . In the top grammar school classes the pupils are, however, also interested in the different selection of the film documents and in the general connection of the reasons given.

Pupils react differently to the two authors as personalities. It can be said quite generally that the degree of agreement or rejection depends on two factors: for many of the pupils in the lower grammar school classes Matthias Walden is more likeable because he vividly relates interesting personal experiences and his language and gestures produce an altogether more positive effect. What is more important for many of the pupils in the top classes is that they classify Sebastian Haffner as "progressive and left-wing" and Matthias Walden as "conservative and right-wing". External personal features are less important for them than for the younger pupils. In both cases these evaluations do not prevent the pupils from going into the contents of the standpoint broadcasts in depth. Nevertheless, the observations show how important it is to take such aspects into consideration before a school television broadcast is produced.

Are there presentations of history independent of standpoints?

The desire for objective information even on historical events and connections is justified. But can it be satisfied? Alfred Grosser once said: "No journalist and no social scientist is objective. But there is a tremendous difference between those who strive for objectivity by criticising and educating themselves and those who do not. It is precisely those who know how inadequate their own objectivity is who are thus capable of considering and describing things with fewer prejudices than those who regard themselves as objective."[4]

Whoever wants to describe historical events will list certain facts such as dates, people and occurrences. Whether they are correct can often be easily checked, as it is a matter of objective factors, i.e. factors independent of the individual's assessment:

When, for example, the German army capitulated, who was sentenced in the Nuremberg War Crimes Trial, what the result was of the conference of minister presidents in Munich in 1947 – all these are facts which are given in the same way by all historians. Only rarely are such data distorted or suppressed.

Anyone dealing with history at school will, however, impart or experience more. He knows that history consists of historical processes, that history is made by people, and that it could therefore have come about differently from how it actually did come about. He is also interested in causes and effects, positive and negative developments and possible chances for different results. These factors cannot be objectively assessed. Here there is one argument for and one against:

One has to advance hypotheses, has to evaluate, has to say what one considers to be good or bad and for what reasons and for whom, why things could (or should) have turned out differently, what helped to promote or slow down developments.

In the school it is certainly legitimate to give historical facts – like in a map exercise – different importance to show up the complex ways of considering and evaluating historical developments. Experts give different, in some cases even contradictory, answers for the same reasons. As an interested observer,it is frequently impossible to decide who is right. In some cases just as much can be said in favour of one standpoint as for another. This may mean that everyone – seen from his position – is right.

But it is also conceivable that someone interprets history in a way which can be proved partially or completely false or is at least extremely biased in support of a certain interest-group, that he conceals some of the facts and gives special emphasis to others or ascribes to figures in history certain motives which they may never have had. There are numerous examples of this from the past and present, not only in dictatorships but also in democratic societies.

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[4] From Alfred Grosser's speech on the occasion of the presentation of the Peace Prize of the German Book Trade in 1975.

Jos Scheurink

A Current Affairs Magazine for Children on School Television

"Schooltv Weekjournaal" (School TV Weekly News) is the current affairs programme for children in the Netherlands and part of Belgium; it is broadcast by Nederlandse Onderwijs Televisie (NOT), the Dutch school television organisation. Every Friday morning between eleven and eleven-thirty, more than 50 percent of the Dutch children aged between 10 and 12 watch this live programme in school. They can see it 32 times during their school year. By the time the "Schooltv Weekjournaal" was 10 years old in September 1991, 318 transmissions had found their way to schools in the Netherlands.

Originally, there was a close co-operation between the "Schooltv Weekjournaal" and the NOS "Jeugdjournaal" (Youngsters' News), the daily children's version of NOS News, the news programme by the Nederlandse Omroep Stichting. Both news services started within a short interval, i.e. in January and September 1981 respectively. Two of the Youngsters' News topics broadcast in a certain week were picked by the "Schooltv Weekjournaal" editorial staff and treated in greater detail. We are talking about the period when NOT was still partly under the responsibility of NOS. In October 1988, NOT became an independent broadcasting body. By then, however, cooperation with the Youngsters' News had already declined.

The formula

The "Schooltv Weekjournaal" formula, which has hardly changed since the programme first started, consists of the following parts:

- introduction
- first topic
- intermezzo
- second topic
- environment spot
- news question.

The topics, with a duration of approx. ten minutes each, usually consist of a report and a studio guest, someone who is involved in the topic one way or other. The report is produced by NOT itself, or it consists of film material taken from the News or from current affairs programmes, especially in the case of foreign news.

Children in this age group have tremendous difficulty in concentrating on serious and complicated subjects for thirty minutes, thus amusement is an important part of the programme. The Intermezzo is a song referring to a funny newspaper item, which was sent in by a child viewer. This song is illustrated by means of drawings and sung by one of the hosts.

Then there is the News Question. Every week a pupil viewer plays this game over the phone. The child has to guess who is the person on a distorted photograph who was in the news the same week the programme is broadcast. So all the parts of the "Weekjournaal" are connected with the news; the possibility to join in for the News Question and the Intermezzo creates a special bond between the programme and the children watching.

Every other week the programme features an environment spot, in which the "Environment Man" presents all kinds of environmental problems and their solutions. This programme part is worked out in cooperation with the Ministry for Housing, Regional Development and the Environment.

After the transmission, the children may call a telephone panel, consisting of members of the editorial staff, the studio guest and specially invited experts. In this way the children can directly contact those who deal with the news.

The programme formula is rather strictly adhered to, especially when the season starts, in order to acquire recognizability at short notice. Later in the season, minor variations are possible, such as a short third topic or vacation tips. Slight style modifications are also possible.

Every year two or three special programmes are produced. For example, in the past few years, the theme of the Christmas programme has been the election of the Christmas Stars. In a number of categories, such as sports and music, the Woman or the Man of the Year is elected.

In the last programme of the season, three schools that have best solved the News Question in that season play the last round of the game. These two transmissions have a festive character and are different from the normal programmes. On rare occasions, the entire programme deals with one subject only. The last time this happened was in April 1991, on the commemoration of World War II.

The subjects

The editorial staff tries to vary the subjects as much as possible. Of course, it is highly dependent on the topics of the day or week. The subjects may relate to various news sectors:

- "hot news" or long term news;
- home or foreign subjects;
- news aiming at adults or children;
- news on various sectors of society, such as environmental issues, economics, sports, medicine, developing countries, history, geographical matters, culture, politics.

The choice of topics is influenced by several considerations. Aspects to be dealt with are, among others, how the topics can be integrated into the school subjects, especially in "world orientation", a subject which in Dutch education is intertwined with regular subjects, such as geography, history, and biology.

The programme writers allow for suggestions brought forward by teachers. Moreover, they try to achieve a balanced programme, e.g. by including a foreign and a home topic, or a serious and a lighter one. If the first topic should be remote and hard to follow, as in the case of a war on the other side of the world, they attempt to combine it with something which appeals more directly to the youngsters.

Generally speaking, the staff try to avoid dealing with one topic more than once within a period of two years. After two years the primary target group, i.e. the ten- to twelve-year-olds in the last two years of primary school, is entirely renewed. Finally, the choice is dependent on visualizing methods for a topic and on budget restrictions.

Since the "Weekjournaal" is a live programme, it is always possible to deal with important current developments in the world at short notice. Recent examples are the fall of the Berlin Wall, Nelson Mandela's liberation and of course the Gulf War.

The "Weekjournaal" also has a weekly print magazine of its own, which has the same title and reaches subscribers two days before the programme is broadcast. The editorial staff try to go into the same topics that are already covered in the magazine. Thus teachers can put them on the schedule beforehand if they wish.

Furthermore, the magazine contains one page of questions and assignments relating to its contents, an interview, and, just like the TV programme, a number of fun parts, such as a puzzle, a column with mini-ads for the children and by them, and a comic strip.

The team

The "Schooltv Weekjournaal" is created by a team consisting of eight people, including four editors/reporters who write articles for the magazine and make the items for the TV programme. Before the programme is broadcast on Friday morning, the two hosts join them.

We try to work with the same hosts as long as possible. The present hosts have been with the programme for three and four years, respectively. They are both very popular with the children and are also known from other Dutch TV programmes for adults. For the technical part of programme creation, the editorial staff avail themselves of the facilities and staff of the Nederlands Omroepproduktie Bedrijf (Dutch Broadcasting Production Corporation).

Rating

The "Schooltv Weekjournaal" has good ratings and scores. Every week approx. 300,000 people watch the programme. Investigation has shown that many adults are among the regular viewers. Of the primary target group, the two highest classes in Dutch primary schools, 48 percent watch every week, while 74 percent watch one or several times during every season; 52 percent subscribe to the print magazine.

In a permanent viewers' investigation, every week a selected group of teachers gives a mark ranging from one to ten (where 1 stands for "very poor", and 10 for "excellent"). Moreover, they comment on the programme, especially on the two topics. The average grade for the 1989/90 season was 7.52, which makes the "Schooltv Weekjournaal" one of the highest-rated programmes created by NOT.

André Rooymans

Watching Television Differently: "News . . . a Matter of Selection"

Following the popular series about alternative TV viewing entitled: "Violence in films and in real life", Nederlandse Onderwijs Televisie (NOT) has produced another school television series about the news, as seen every day on television. The entire project, consisting of 6 twenty-minute TV programmes, a pupils' workbook and a manual for teachers, is intended for children in the 11 – 13 age group.

The **objective** of the programme is to teach children, with the aid of the television programmes and related study material, that news as seen on the screen consists of selected items and therefore provides a subjective and incomplete picture of reality. With a view to honest journalism, it is explained that inevitably an incomplete picture of reality is presented.

Children and television news

For Dutch children in the higher classes of the primary school television is by far the most important news medium. Radio is used by this age group mainly to acquaint themselves with the latest hit parade. Newspapers are read only occasionally. On average only one minute a day is spent on glancing at a newspaper. If the paper is read at all, the interest is mainly in cartoons and trivial news items: traffic accidents, crime reports and local news.

Children acquire information about national and international news from television. In between the many films and light entertainment programmes, children watch informative programmes for about ten minutes a day. A certain proportion of the information provided by the news bulletins and other informative programmes goes over the heads of the children.

This is a task for the schools, which are supposed to teach children how to use sources of information. In many primary schools in the Netherlands much attention is paid to teaching the understanding of television news. About half of the primary schools watch the "School TV Weekly News", a programme in which a number of news subjects are covered. "Jeugdjournaal", the daily junior news programme of NOS, also plays a leading role in making the news understandable.

Children should not only learn how to understand TV news reports. It is important to make them become more discerning, even more so than in the case of newspapers. Although many think that something is true because it is in print, television creates the impression that the news is presented in a really unbiased way: after all, pictures do not lie. Children do not yet realise that pictures can lie, even though those that make them do their utmost to avoid lying.

The impression which pictures have on the viewer is determined, to an important extent, by the selection made by the television journalist: what is shown, how it is presented, the commentary and – especially – what is left out. The programme "News . . . a matter of selection" in the NOT series "Watching TV Differently", gives the children a look behind the scenes of television journalism and dispels the illusion that objective reporting is possible.

Research

During the preparations for the series extensive research was carried out. Children from the higher classes of the primary schools were interviewed about what they knew and thought of the news programmes on television. This research showed that children are aware of the fact that the papers provide much more news than television. Despite this, children think that the television news also gives a reasonably complete picture of what is happening in the world. Children obviously do not realise that less than 1% of all the news is presented visually.

Children in the 10 – 12 age group also believe that most reports arrive at the editorial department shortly before the broadcast. In reality, most subjects have been planned a long time in advance. Children in this age group do not realise either that a reporter expresses an opinion in his comments and that this, intentionally or unintentionally, can manipulate the news. They are also not aware that most shots are not used in the final broadcast and that offscreen comments can considerably colour a report.

The new NOT series "Watching TV Differently" provides children with items of information about television news broadcasts. It gives them a look behind the scenes of the 8 p.m. news broadcast. It had already been established that the series could be effective. During research, parts of the series were shown to the children, after which their knowledge was tested.

This involved a simulated news item which returns as a serial in each programme. A NOT camera team accompanies a news reporter while she is covering a strike in a classroom. As a result of seeing this serial the level of understanding of the children advanced slightly. They obtained a better idea of who works on the programme and what is involved in making a TV news broadcast. They did not find the news either more or less interesting to watch, but after the NOT film they had developed a more critical attitude about what the news bulletins convey or can convey.

Content and structure

NOT has made a school TV series in which the children are shown how television news programmes are produced. With the aid of pictures and the accompanying teaching material, children can learn that TV news cannot present all the news comprehensively. Children obtain a better idea of the selection which journalists make when producing a news broadcast. It teaches them to look at television news with different eyes.

News items for the series were deliberately chosen from the Dutch 8 p.m. news broadcast. Despite the fact that children in the higher classes of the primary school would rather watch the junior news bulletins, audience research figures show that children prefer to watch the adult news broadcasts at home. Moreover, once they have left primary school, children no longer watch the junior news broadcasts.

Each TV programme can be divided into three parts:

a. Information:
   Presenter Cees Grimbergen shows the viewer around while the 8 p.m. news broadcast is being made. By means of documentary pictures and interviews relevant information is provided on how the programme is produced. The 8 p.m. news was deliberately chosen as the starting point because research showed that children in the 10 – 12 age group watched it more frequently than the junior news broadcast.

b. Serial part ("A report about . . ."):
   In a serial spread over the six programmes we follow a news reporter as she makes her report about a class which has gone on strike. In this way the most important aspects of the previous informative part of the programme are repeated.

c. The test:
   Finally, the knowledge gained is tested at the end of each programme, using one or more real items from news programmes. The answers to the questions are entered into the pupils' workbook.

TV is an ephemeral medium. It is of great importance that the information in the TV programmes should be explored in more depth after viewing if it is to have any educational value. For this reason the most important parts of the programme are discussed again in a 32-page workbook, and material to broaden the knowledge of the subject is provided.

The manual provides, alongside a copy of each page of the workbook (with the required answers), background information and treatment suggestions on the right-hand page, so that only a minimum of preparation time is necessary. Research into the results of the previous series has proved that this method is practical and effective and is greatly appreciated by teachers.

Programme contents

1. "Is that news?"

Aim: In this lesson the children learn that the presentation of news is a question of selecting from a large number of subjects. They learn that the subjects are received in different ways and from different sources. It is also made clear that there are certain selection criteria in the choice of subjects.

From 8 a.m. to 8 p.m we follow a day's work on the news programme. Chief editor Gerard v.d. Wulp explains that only a small proportion of the news received can be used. In this way the selection criteria and news sources are covered.

2. "Camera on!"

Aim: In this lesson the children learn which choices there are in TV coverage and what effects these choices have.

Reporter Peter van der Maat is seen making recordings for a news broadcast. He explains which choices there are in respect of the TV recordings.

3. "Pictures to fill up gaps"

Aim: In this lesson the children learn that pictures taken while covering an event must often be supplemented by a selection from a large quantity of existing material, and what kind of material this is. Children learn to differentiate between pictures which are directly relevant to the commentary, and those which are brought in as a matter of expediency, to avoid embarrassing gaps.

Director Martin de Groot explains that in addition to their own pictures they often use existing material from the archives or material filmed specially to clarify certain subjects (animations, maps, etc.).

4. *"We'll take that out!"*

Aim: In this fourth lesson the children are given an idea of how the editing of video pictures and sound is carried out. They learn to recognise so-called 'moments of editing' and to see why this may have been done.

Editing, the 'cutting and pasting' of pictures and sound greatly affects the final result. What stays in? What goes out? Editor Charlotte van der Veen demonstrates what takes place during editing.

5. *"Good evening . . ."*

Aim: In this lesson the children are shown something of how the entire news bulletin is compiled and how it is presented. They learn that the compilation and presentation may influence the way in which the subjects are perceived.

The compilation and the way in which the news is presented affect the impression which the news has on the viewers. Presenter Joop van Zijl shows how he works and how this can influence the final result.

6. *"Looking at selections"*

Aim: In this final lesson the children learn to recognise the differences between the choices made in the past and those made nowadays. With the aid of existing news reports they learn to indicate where these could possibly be at variance with reality. Finally they learn that TV news differs from news published by the newspapers. The TV news is more transitory and gives only a limited insight into what happened, although pictures can sometimes say more than a newspaper report.

This final programme deals primarily with the differences between the choices made in the past and in the present. The available technology plays an important part in this. Finally, correspondent Philip Freriks discusses the difference between news in the newspapers and on television.

Conclusion

"Watching TV Differently" – "News . . . a matter of selection" can bring it home to children that completely objective reporting in TV news programmes is impossible. The series contains various eye-openers, so that they will watch the news with different eyes. It thus provides an important contribution to the growing discussion on the subject of media education. Teaching children at an early age about the media makes them better equipped to deal with the influence which these media can have on them. For that matter, it would not be a bad thing if parents were to watch these programmes, too, because a surprising number of adults have naive attitudes about television and news programmes.

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Gráinne Tobin

The Ulster Media Skills Experience

Working on the teachers' resource pack for Ulster Television's *"Media Skills"* series was one of my more satisfying professional experiences. Teachers are notoriously shy of collaborative work: we spend more of our working lives than is good for us laying down the law in our own classrooms! So the *"Media Skills"* project was a new departure for me, a teacher of English; and for Jamie Delargy, the series producer, and Jacqui Berkeley, its presenter. Jacqui and I had met ten years earlier through our joint work on another teaching pack, so we knew what kind of challenge we were taking on.

"Media Skills" was designed for the Northern Ireland market, where there are too few locally-produced educational programmes tailor-made for a regional audience. Although some excellent network programmes are available from Britain, they sometimes present problems for teachers in Northern Irish schools: our educational system is different, and our political background can seem worlds away from the United Kingdom.

Social attitudes portrayed in programmes made, say, in London can be incomprehensible to some of the young people in our schools. This region is as 'peripheral' as you can get, on the edge of the United Kingdom as well as on the edge of the European Community, and the experience of our students is usually on the remote edges of anything they might see on television.

We therefore planned a series of educational programmes which would show 15 – 16-year-olds how the mass media operate, using familiar local examples. The programme would try to explore controversial issues such as political bias, news management, and sexism in advertising, in a way that young people would understand and teachers would approve of.

Many teenagers in Northern Ireland do have strongly-held opinions about the mass media's presentation of our 'troubles'. These range from a view of the media industries as mouthpieces of British imperialism to a conviction that television is full of pinko fellow-travellers with a soft spot for terrorists! *"Media Skills"* would offer a more complex and interesting analysis of the real contradictions and constraints involved in media production.

Themes of the individual programmes:

Programme 1: "The Media Day"
Programme 2: "News"
Programme 3: "Political Coverage"
Programme 4: "Behind the Scenes"
Programme 5: "Presenters"
Programme 6: "Newspapers"
Programme 7: "Alternative Voices"
Programme 8: "Advertising"
Programme 9: "A Way with Words"

The producer who worked in current affairs was confident that he could come up with a sparky television series, but wanted to be sure it really could be used in schools. He asked the presenter: "What will make this series irresistible to teachers?"; and she, being able to draw on her former experience in schools' liaison work, answered: "Classroom support materials". When she telephoned me with the same question, I gave the same answer: "GCSE coursework assignments".[1] We both knew that the new GCSE examinations for school-leavers, and the impending upheavals of the National Curriculum, were making enormous demands on teachers' time and ingenuity; anything which gave them really practical help with classroom follow-up work would be welcomed.

The three of us recognised each other's different skills and expertise. We were excited by each other's ideas. And because we got on well at a personal level, no-one was inhibited by the fear of giving offence from expressing honest opinions on the proposals and written drafts the others brought to the group.

At times I acted as devil's advocate; my role was to insult the producer's extensive vocabulary and complain that his mandarin prose would baffle many of the less socially privileged teenagers who would use the pack. As always, the most challenging task was translating complicated ideas into simple language.

One programme, for instance, coincided with the 20th anniversary of the arrival of the British army in Northern Ireland in 1969. We used clips from foreign TV stations' coverage to show how the same events can be interpreted in various ways. The support materials included a student worksheet requiring the collection of terms used in these news broadcasts. One station's "fighter" would be another station's "terrorist", for example.

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[1] GCSE = General Certificate of Secondary Education.

This use of authentic TV material, touching on their own lives, proved very successful when I later came to use the series with my own students. Now that I work in adult education, I find this approach works well with adults; the acceptability of the series to older students says a lot for its unpatronising tone.

Our support pack was indeed popular with teachers, and we even had enthusiastic requests for copies from schools in England: a reversal of the usual cross-channel broadcasting traffic. For myself, the *"Media Skills"* experience was well worthwhile – not least for proving that collaboration between teachers and broadcasters need not hurt a bit!

Paulette Magnenat

"Magellan" – Media Education Initiatives in French-speaking Switzerland

"Magellan" is the name of an educational magazine broadcast weekly by Télévision Suisse Romande (TSR), the French-speaking Swiss Television. It lasts for 30 minutes and may be composed of either several short modules (5 – 10 minutes) or 30-minute films for special broadcasts.

"Magellan" is produced by the public education departments of the French-speaking Swiss cantons in cooperation with the TSR. The programmes are subject to the dual constraints of having to please both an audience of schoolchildren and the general public. They have a late Saturday afternoon programme slot, so that young people can view them at home on their own initiative, and they are repeated on Tuesday mornings, which allows schools to view them in class or to tape them on cassettes for later use, the teacher choosing the moment when to incorporate them into his lessons.

We have given the programmes a form that addresses young people directly, that is to say, we endeavour, as far as our means permit, to adopt an audiovisual language, a presentation and a form of speech that do not require an intermediary to complement our explanations: in short, a rhythm and a technique close to those young people habitually listen to and view.

However, we have not given up the right to deal with what is regarded as "serious" subjects, such as current topics, understanding the phenomena of communications – see below, "Education in the Media" – and social or cultural subjects.

School television was succeeded by educational TV, which has now existed in its present form in French-speaking Switzerland for 13 years. It has constantly adapted its approach to meet the developments undergone by both school and television.

With regard to schools, we decided not to complement or illustrate subjects taught in schools. Because of the disparities between the different cantons we broadcast to, it would have been difficult to find common ground acceptable to schools in Geneva, Vaud, Valais, Fribourg, the Jura or the Bernese Oberland. In order to get away from regional idiosyncrasies in the matter of teaching, we chose to deal with subjects such as current affairs or media education.

What is inconvenient about this decision is, of course, that topics such as media education or programmes that attempt to increase awareness of a subject only rarely form part of the school curriculum. Teachers, who already regard themselves as being very restricted by these syllabuses that everyone is talking about, do not therefore always find the time to devote hours to teaching something that they regard as an extra load.

Television itself views with satisfaction our efforts to adapt to the new audio-visual landscape. However, the TSR, like all TV channels, must address the problems of competition and, with the presence of our big French neighbours, the results of the programme ratings determine the chances of survival of a channel catering for a linguistic minority in Switzerland – with a potential audience of 1.5 million.

Our French competitors, who can count on a gigantic audience and are also subject to less stringent legislation than ours with regard to advertising resources, stopped producing educational programmes a long time ago. It is therefore difficult for it to be accepted here in this country that, for a TV channel providing a public service, maintaining this type of programme is of primordial importance.

Far from being an imposed duty, the task of providing educational programmes could, on the contrary, become an ace in the hands of public television channels. At the moment, educational programmes are not the kind of broadcasts that are given priority on our channel, but, nevertheless, they are well regarded by both the heads of television and the public. Taking into account the times at which they are broadcast, their ratings and market share are satisfactory, which is a good sign for the future.

Nevertheless, it is not enough for an educational programme to please young people, the general public, heads of TV or school authorities: it is also necessary to convince the teachers, to prove to them the usefulness of our approach and to start a dialogue with them. Together we have created a system of surveys and evaluations and, at their request, have improved information and publicity.

In rethinking the formula for educational audiovisual broadcasting, our aim was a more global concept based on the complementary nature of the media. Educational radio and television have therefore combined their efforts and have presented themselves under the same title, "Magellan".

We have progressively added to it a videotext service providing announcements of future programmes; a help in building up an archive of titles already broadcast and offering the opportunity – where the organisation of the documentation centres allows it – to order cassettes directly by means of the telematics service.

The next stage will be to launch a print magazine, to be inserted into TV programme magazines; thus "Magellan" will make use of four media: radio, TV, telematics and the printed press.

Three producers of educational programme, Marie-José Broggi, Philippe Jacot and Paulette Magnenat, are at "Magellan's" controls. We are assisted by a secretarial service (three part-time secretaries) and work out the programmes with Radio-Télévision Suisse Romande professionals. We have regular meetings with the representatives of the departments of public instruction, with whom we are trying to harmonise the future of "Magellan'. Its success and survival will also depend on the opportunities to associate with our European colleagues in coproductions or other joint projects.

The "Magellan" series and media education

"Magellan" was restructured in accordance with a formula whereby one week was devoted to the transmission of our own productions and one week to bought-in films. Later we wanted to shorten the length of the modules for class broadcast. However, we immediately regretted that we were now obliged to treat complex subjects in 3O minutes, fearing that we would always remain at a level that was too superficial, too general and too fragmented. From this came the idea of a programme series of six episodes devoted to one subject, offering all the flexibility needed both for use in class and for broadcasting.

Media education being one of the tasks assigned to us, we quite naturally chose to go back to the subjects that we had already treated: radio, the press, strip cartoons, advertising, how television functions, photography, reading the image, sound in audiovisual media or, more generally, the means of communication and their role in our society.

Under these chapter headings series were produced such as "Advertising", "Series in series", "Magic Images", "Young People and TV: who holds the remote control?", and "Stories of ordinary emotions".

"Advertising", one of the television shows that children are most fond of, deserves our complete attention, since advertisers themselves know how to make use of the attraction that they exercise on young people. The omnipresent advertising messages are often addressed to children: they are both the actors and the target. So why not give them the means of understanding these phenomena and offer them, at their own level, some collective reflections to help them to make a better choice and to be better oriented in our consumer and communications society. With the episodes such as "Persuading in images", "Advertising in shops", "Creating a campaign", "Creating a TV commercial", and "Transmitting advertising on TV", we offered a general survey which allows advertising to be studied in school, not making moral judgments but simply providing knowledge.

"Series in series" was based on a discussion of why there is such a rapid proliferation of TV series, soap operas and serials transmitted continuously over all TV channels. The analysis of the structures, the narrative procedures and the stakes involved in this TV genre is fascinating. Our episodes "Hero in the programme", "Tricks and stunts", "Filming an episode of Derrick", "Filming an episode of the show 'Vivement Lundi'", "Bring on the music: Vladimir Cosma", and "Voice and dubbing" have been highly successful. The serial being one of the public's favourite genres, it was much more constructive to bring about a better understanding in young people of this television genre and in doing so to accept it for what it is, rather than to adopt, as is often done, a sneering attitude, which, far from starting a discussion, entrenches everyone in his own position.

"Magic Images" took as its starting point an exploration of the fabulous world of the animated cinema, its techniques, its riches, its history and its future prospects, but not without an elucidation of the economic aspects linked to the fact that TV channels have to produce broadcasting schedules which bring in big audiences with a minimum of investment. This is a matter which complicates life for producers and directors of animated films, all the more so as quality productions are very expensive.

The series "Young People and TV: who holds the remote control?" approaches the question of how the time spent watching television should be managed, since it is not enough, of course, to analyse the contents of programmes – it is also necessary for the viewer to observe his own behaviour as a televiewer, to learn to define his needs in order to find out all the advantages TV can provide us with. This, too, we believe to be an aim of media education.

What a surprise to see that even programmes that are decried are irresistible for the family as a whole, that discipline is necessary and that it can take on the most varied forms depending on the family. Parents themselves sometimes seem to have difficulty in submitting to the discipline they impose on their children. One fact is certain – the majority of children have one, indeed several TV sets available for use at home, videorecorders are very numerous, but in spite of all this, TV is not always used in the optimum fashion. Although installed in the sitting room with its place in family life, it is the cause of many conflicts and problems.

Our programme "Stories of ordinary emotions" seeks to provoke reflection on the way in which the media take hold of our emotions, often to increase our pleasure. How enjoyable it is to shudder while watching a horror film or to dream over a beautiful love story! However, TV's propensity to insist on the emotional element occurs precisely in a period when learning how to communicate feelings is being neglected. It is therefore an ideal moment for us to become aware of our emotions, of how we experience them in daily and family life, before even pondering about the emotional power of image and sound.

These series are all accompanied by written brochures intended for teachers, who will find in them details of teaching aims, summaries of episodes, suggestions for discussions or activities, useful addresses and bibliographies, all of which facilitates the preparation of lessons in which they intend to integrate class viewing of these modules. These brochures are supplied free of charge to any teachers who request them.

As our presenter, Ivan Ischer, put it: "'Magellan' has taken off". It is going well, has reached cruising speed and we can only encourage it to make more numerous discoveries.

Airi Vilhunen

Finnish School Television and Media Education – Looking Back at the Year of Communication Education

Media education in its many forms is a central field for school television, and the school television department of YLE, too, has a long history as a promoter of media education. Titles and points of emphasis have varied, as have thoughts and ideas about media education. In the early 70's stress was laid on sociological mass-communication education. Going back to the aesthetic side of the moving pictures was a kind of a counter-reaction. Recent influences have been semiotics and research on film and television based on a wider cultural research, for example. Culture with popular appeal has not been sniffed at, either.

Finnish schools use the term communication education instead of media education. It covers a wide field of subjects. In its widest sense, it means a new way of learning, gaining knowledge from different sources. Unlike the old rigid teaching from books, communication education lays stress on actively collecting and handling information and evaluating it critically.

A new era began when video cameras became more common, and the idea of using a camera just as one uses a pen became realistic.
Pupils working on their own, learning by doing, telling stories with the help of new media, mainly with the video camera – all this became part of mass communication education.

Now the YLE School Television is challenged by young cameramen and women. They make us look for a new interactive role in media education. Our audience has been born and brought up in the era of images, which is a true challenge for us. Their taste for images and ability to control the language of images is considerably different from that of the previous generations.

The third area of communication education, which to my mind can also be called media education in Finland, teaches the ways media are read and analysed critically. A school television programme is an excellent way to provoke questions about the pictures in the media and to show what is behind them. It is also important to consider the meanings a viewer gives to the pictures.

"A Year of Communication Education" – the contribution of YLE School Television to media education

In 1990 – 91 YLE's School Television department chose communication education as the main theme. Naturally, a larger part of the programmes were about other subjects than communication, but nearly 20 programmes on this theme were broadcast. Some were series, some separate programmes.

An important starting point for the year was to find a way to publicize the programmes aimed at different grades so that they would support each other. It was also hoped that a common theme would help the viewers to find the programmes, which would otherwise have been lost in the multitude.

The programmes and ideas were divided into learning by doing and acquiring information. Primary-school children were encouraged and taught to make things on their own. In secondary schools, emphasis was put on analysis. Our widely publicized competition under the title "Our Own Videos" was for all ages.

It was not a coincidence that 1990 – 91 was chosen as the Year of Communication Education at YLE School Television. After many quiet years of not quite knowing how to proceed and what to do first, communication education had finally got off to a proper start in schools in Finland. It had been chosen as a field of special interest; the Central Board of Schools had a project on it for teachers and in many parts of the country communication education was attracting interest. Besides, schoolchildren who could use the camera-pen and their enthusiastic teachers were already watching school television regularly.

Starting from animation

Naturally, it is the teacher who makes the final decision where the main stress is to be placed in media education. While scheduling the programmes for different grades I had to aim at the logical progress of practising how to read and to write moving images.

The year started with teaching the basics of moving images: "Our Own Animated Films" was the title for three programmes about doing animation on one's own. The first programme in this series, "How to Animate a Film", was an introduction to the basics of moving images accomplished by my Swedish colleague Erling Ericsson who merits our thanks for this excellent programme. He showed how story, image, movement and sound are the building blocks of both animation and any other moving image. The programme is very suitable for viewing even if the class cannot or does not want to make their own films.

The second programme in the series had the title "A Summer Holiday Aboard M/S Anita", based on a Finnish author's childhood experiences. It was made by a grown-up professional but it shared the theme of making things on one's own by asking if there is anything in the surroundings or memories of the pupils they would tell others about with the help of moving pictures.

The last programme in the series consisted of children's own works. It was hoped that the series would encourage at least some teachers to animate an eight-millimetre film. Unlike "easy"-to-handle videos, animated films force the viewer to think of the language of pictures. It is therefore a good basis for teaching moving pictures.

We also organized a course in animation together with the Central Board of Schools as a part of the Year of Communication Education. The instructor was Erling Ericsson. For two days enthusiastic teachers of mass communication education in primary schools tried their hand at animation with the help of a video camera. It turned out that eight-millimetre-wide film is so much more difficult to use than video that schools are not likely to return to using it. They prefer waiting for cheaper video cameras with the capacity of still frames.

"Our Own Videos"

The most prominent project of the autumn of the Year of Communication Education was called "Our Own Videos". It consisted of an invitation to a competition, television programmes, posters which were sent to every school and a booklet of instructions.

The first competition for schoolchildren was organized by the school television department in 1988 – 89. During the Year of Communication Education the competition was repeated with clearer instructions and aims.

The invitation was sent out in a television programme showing videos previously produced by schoolchildren and students. Every school also got a poster of the competition. A trailer was shown in connection with school television programmes, especially towards the closing of the competition.

Contestants were encouraged and taught by two short programmes ("Ready!" and "Shoot!") made in music video style, and their main function was to create enthusiasm.

Details are better shown in a book, we thought, and so we published a 24-page booklet for teachers under the title "Ideas For a Video". It contained basic information about video equipment, writing a script, telling a story with the help of pictures, shooting and editing it. In the centrefold there was a general plan to be copied for the pupils.

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School television as a forum for the pupils

The two themes chosen for the "Our Own Videos" competition were "A Great Adventure" and "This Is Where We Live". We chose them hoping that we would get also non-fictional works for the competition. But in the instructions it was stressed that the themes could be handled freely and the video could be anything from a music video to a more traditional story or documentary.

There was only one strict rule, the video should not last longer than five minutes. It proved a good choice, the themes not necessarily so. The contestants were told that originality would weigh more than technical skills. It was also hoped that the pupils would assume the major role in making the video and the teacher would only guide them.

The contestants were divided into 7 to 12-year-olds (primary schools), 13 to 16-year-olds (secondary schools) and older (middle grades). The invitation went out in early September to classes, video clubs, groups of pupils and pupils on their own. The competition closed in the end of February. Most of the works reached us during the last few weeks.

About 230 videos took part in the competition. Some rapped wildly, a few were skilfully animated, some took a stand on the present world situation, some were stories with great skill in handling the images. It was motley crowd with a few truly bright gems. Originality was rewarded but no mercy was shown to copies of television programmes, which came from some of the younger contestants.

About 160 works came from the younger contestants. It is natural that the teacher's hallmark was more prominent in them and the videos had been made in the school. The contestants were from 7 to 12 years old, which meant a wide difference in handling the storyline and the technique.

The judges did not therefore choose the "best" in a simple sense but the four winners and those who got diplomas were either well-done or fresh in the sense of having new ideas if not so much technical skill.

Both the secondary school and the middle-grade students had done most of their work outside their schools, in local video workshops, for example. They shared a Weltschmerz and worry about the future of the environment and the world. Some of these young people will certainly be heard of later in their lives.

The grand prizes for the winners were video recorders and television sets, which were given to us by the largest manufacturers and important agencies. Finding sponsors was not difficult even if the present economic recession had started to show in Finland.

Every contestant received a diploma to hang on the classroom wall. We would have liked to judge each work in detail but the 230 videos made it impossible. Only the best had a letter from the judges.

The competition also excited us at YLE School Television. The preparations took a lot of our time and watching 230 videos was not exactly a quick process, either. Finding sponsors meant quite a few phone calls and some persuading, too. But we felt that some of the joy of making the videos transferred to us when we met young cameramen and women for whom the prizes were a well-deserved thank-you and encouragement.

For them it was just as important to see their videos on television. We compiled four programmes of them, some of which were shown in the autumn of 1991. One of the best videos by the younger contestants, a clever rap about the school rules was seen by million people when it was shown on television together with the results of the competition.

"Make a Video" – an international competition

Our competition will be followed by an international competition between the school television departments of EBU member countries, to be held in the spring of 1993, and many countries have already said they will enter. At any rate, we are hoping for as many contestants as possible.

Each country may organize a national competition or viewing any way it likes and send the winning programme to Finland to be judged by an international jury and a jury of Finnish children.

"Incredible Images"

The spring of the Year of Communication Education started with "Incredible Images", a series for secondary schools which teaches analysing images in the media. It consists of four programmes about media, their images and signs and how to read them to be used mainly in Finnish classes. It strives to teach the pupils to understand and translate the contents of images in the media, ranging from news and sports programmes to celebrities in advertising.

One of the thoughts in the series is that there is not such a big difference between facts and fiction as we like to think. There are heroes and villains as well in films as in news.

"Incredible Images" looks at different media but most of all at television. The series reminds us that television is not a window on the world but just like all the media it limits, organizes and interprets the world events for the viewers. The series does not moralize, though, or say that the media plot against the viewers trying deliberately to mislead them. It is more important to point out to the viewers the commercial mechanisms in the media.

"Incredible Images" is accompanied by a book with the title "Signs on television" that gives background information about recent findings of television research mainly for the teachers. It covered various television genres from news to soaps.

The first programme was broadcast during the Gulf War. It was more important to be able to read the media than ever before. The war made the series horrifically topical.

We informed the Finnish teachers about the series more than we normally do. The series was publicized by sending a poster to every secondary school. Critics in newspapers, who normally tend to ignore the school television programmes, wrote even lengthy articles about "Incredible Images". It all led to high viewing rates in schools.

Looking back at the Year of Communication Education

The Year of Communication Education was granted a tremendous amount of publicity both in schools and in papers. The popularity of the video competition and the comments by teachers about "Incredible Images" show that we reached our aim with them. It was also important that the schools felt that YLE School Television played a part in their media education.

The video competition stressed our interactive role. It was our signal to the schools: your work is important and you are doing it well, we want to show it to everybody.

Next time we hope we will be able to handle each contribution separately, maybe over the phone, so that the contestants could talk about their work with the judges.

YLE School Television had co-workers in organizing the video competition and collecting material for the booklet "Ideas For a Video", but we shouldered the responsibility alone, which does not make us willing to try it with others again.

Nevertheless, we are interested in an international competition. We hope that the interactivity will spread from one country to another and that we will be able to show here in Finland what kind of videos schoolchildren make in other countries and how they see our common world.

Ursula Möller-Rösch

Media Criticism and Media Analysis on West German School Television

Ever since its inception, since the 1969/70 school year, the Westdeutscher Rundfunk's (WDR) school television has also offered broadcasts in its programme on media education. Even in the preparatory stage Dr Klaus Katz, then head of the department, issued a statement of intent to the effect that school television should make "an important contribution to the media education of young people". That was in 1968.

The obvious thing to do was to choose one's own medium as the subject of critical examination. So the first three-part series, entitled "The Medium of Television", was produced. It was transmitted as early as May 1970. The films of 30 minutes each with the titles "A Broadcast is Made", "The Subjective Objective" and "Reports and Opinions" were intended for lessons in the 9th year of school.

"What it would be possible to achieve is seeing and hearing from a critical distance. To do this it is necessary to make oneself aware of the possibilities and limitations of reporting on television." This still rather vague statement of the learning aim appears in the booklet accompanying the broadcast and was published at that time by the WDR's Press Section. Four years later – the series had been thoroughly revised in the meantime – further explanations on the objectives of the series were added to the support material. It says in it that young people in particular should meet their needs for information and entertainment with the help of the (mass) media and should therefore learn to use these media critically. A "look behind the scenes" might be quite helpful here.

"Television with its high degree of stimulation can and must here provide the best possible secondary experience wherever primary experience is not possible," it goes on to say. Thus the first broadcast was intended to supply information on "how many different jobs cooperate on television and which technical equipment has to be available". But the second instalment was already intended to do more than just give information: it was to "make it clear to the pupils how subjective the sound and pictures recorded by the camera and the microphone are, even with the best endeavours on the part of the reporters to be objective. It also wants to show how film and television reports can turn reality upside down by conscious manipulation. Finally, the third instalment wants to help the pupils to distinguish between reports and opinions on television".

It was entirely in this spirit that the follow-up broadcast "Television, the Scene of the Crime" was made in 1975. The four-part series was also planned for the target group of the 9th and 10th school years and dealt with the technical and editorial conditions of this medium and its effects on the viewers. Here, too, the individual parts were 30 minutes long – only later were units of 15, at the most 20 minutes, offered for the lesson so as not to overtax the pupils.

Since then numerous series and individual broadcasts on media criticism and analysis have been transmitted by the school television department of the WDR. Apart from dealing with the WDR itself as a mass medium, analysis and criticism of the press, the music industry and advertising were repeatedly the subjects of broadcasts, such as, for example, "Handling the Mass Media", a series produced as early as 1971. It was followed by "The Manipulators" (1974), "The Press, the Scene of the Crime" (1977) – taken over from the Hessischer Rundfunk –, "The Daily Press" (1980) and "Where Did You Hear That?", one of the first broadcasts for the primary level in 1975.

Later the successful broadcast "Life Can Be So Beautiful" was developed, paying special attention to the learning conditions of pupils at special schools. Sascha Hehn, the star in soap operas like "Dream Ship" and "Black Forest Clinic", played a pop singer in it with an inexperienced voice, who is hyped up and then dropped by the powerful people in the pop music industry. The series "Advertising Makes It Possible", a drama about an advertising agency which has to bring a product for young people on to the market, was made for the same target group in 1984.

In between there were series to encourage critical viewing or to help analyse the picture language, such as "Learning to View" (1973) or "The Language of Pictures" (1977). The series "The Medium of Film – the Technical Aspects" was followed by the "Analysis of Feature Films" and later "Film Language". With a look behind the scenes the theatre was presented as another medium in "Production Ideas" and "Production Styles" of various contemporary theatrical and musical performances and later the theatre generally in "What a Drama".

For some years, other ARD broadcasting houses, too, which put on their own school television programme in the area they serve have been offering broadcasts on media education, some of which were co-produced with stations in other German 'Länder'.

A target group programme

School television is a typical target group programme, which is transmitted solely – except for special broadcasts – on Channel Three, and then in the mornings from 9 o'clock onwards. Naturally, at this time there are quite a large number of "outside viewers", such as senior citizens, housewives, shift workers, unemployed etc., because the programme can, of course, be received by anyone. The repeats on WDR are in the mornings; the first transmissions to inform the teachers in advance are shown every day between 4.30 and 5.30 pm. But it is precisely in the late afternoon that the competition on all channels is not inconsiderable.

How many teachers in North Rhine-Westphalia know what we offer and actually use it? Which teachers avail themselves of our programmes on media education and media criticism, and what is their experience with them? Unfortunately we only have conjectures to go on – it is much the same with the other colleagues in the ARD.

A survey carried out by the former Research and Development Centre for Objectified Teaching and Learning Methods (FEoLL) in 1981/82 showed, it is true, that 73 per cent of all schools offering general education in North Rhine-Westphalia work with school television and every pupil becomes acquainted – statistically – with four school television broadcasts in the lessons each year, and the above-mentioned series "Life Can Be So Beautiful" was placed fourth among the top programmes for special schools. The survey, however, had its shortcomings: not all types of school were included, and the return rate of the questionnaires was only just over 50 per cent.

The broadcasting station, however, puts out a lot of information on its productions: before the beginning of a school semester the WDR sends programme brochures to all the schools in North Rhine-Westphalia containing brief notes on the contents and learning aims for the broadcasts planned in the coming year together with the dates of transmission and a poster giving overviews of the programmes.

Each month over 4,000 schools in North Rhine-Westphalia receive the magazine "psf" (for "Praxis Schulfernsehen"), which, in keeping with the context model, contains detailed support materials for the teachers and pupils' worksheets which can be photocopied.

However, whether a new series on media education is tried out at a school by one or several or even no teacher is not revealed by this figure, nor whether a series that has been broadcast for a number of years is used by one and the same teacher several times in different classes. Moreover, the letters and phone calls expressing praise or criticism or even suggesting ideas for new subjects we could cover are, unfortunately, rare.

Wish and reality

The WDR school television programmes have always been intended as something offered to the teacher which he can use to enrich his lessons. That is also one reason for the wide spread of the subjects, which appears to many a media educator to be accidental, especially in the case of broadcasts on media criticism and media analysis.

This seemingly arbitrary selection of subjects by the programme makers has, however, a different background. As there is no such school subject of its own as "Media Education", there were for a long time no guidelines or syllabuses for it, as there are for other school subjects, in any German 'Land'. Nevertheless, necessary and possible activities in media education are indicated in the guidelines of a wide variety of subjects and school types. They are recommended to the teachers, but they are not prescribed – and sometimes one has to laboriously interpret them out of the didactic jargon oneself.

There is no shortage of subjects on media education which could be taught on school television. But there is a whole number of circumstances which prevent an expansion of school television from the outset: there is the financial framework which confines us: for years school television's programme budget has not been increased, although production costs have risen on all sides; and when nine producers, who want to produce broadcasts for a total of 16 subjects, have just under 3 million marks at their disposal, then it means that much of what has been thought up and is desired in the way of programme projects can be forgotten.

Media broadcasts are soon outdated

The time that elapses from the idea to the transmission of a broadcast is usually 18 months, sometimes even longer. And then as a rule it is in the programme for three or four years. Some broadcasts are repeated even more often if the subject and its treatment are timeless. It is particularly productions on media education, however, which quickly become obsolete: quite a few technical developments come in quick succession, and some connections in media policies are out of date after a few years.

Thus the series "Life Can Be So Beautiful" about the rise and fall of a pop singer, first transmitted in 1978, is simply no longer up-to-date today: firstly, the music scene has changed completely and with it the young people's taste; secondly, the hit parade then broadcast by the ZDF which plays an important part here no longer exists. And then there is fashion! Our kids would kill themselves laughing at the long hair and the daring bell-bottomed jeans popular in those days.

It is the same with broadcasts on current affairs: the series "The Power of the New Media" could only be transmitted three times. The reason was that the scenarios of yesterday's media world were preceded by short animated films which describe the situation "today", which was 1985. Although as little statistical material as possible was used in off-screen narration, these animated parts would have to have been remade for a repeat, and animated films are expensive.

The decision as to whether a programme idea on media education should be realised and, if so, in what setting also depends on the agreements reached in the relevant Subject Advisory Committee. These are made up of committed colleagues who work with our programmes at school and who – at any rate in the department producing media education programmes – are called together for a particular project. They assess the possibilities of using a new series, taking the target groups it is intended for into consideration, discuss possible learning aims, check over the scripts for their usefulness at school and, in most cases, also compile the support material for the broadcast.

Determining the target group

It is particularly determining the target group which, in the absence of any directions in the curricula, is often difficult. Frequently, of course, the specified subject itself determines from which age it is suitable for use in the class. The coproduction "The Business with the News", for example, certainly cannot be discussed in 6th grade classes. The series has to impart considerable information on television news, on those who make it, on news agencies and newspapers that are subscribed to and those bought in the street. The pupils have to be in a position to recognise and to analyse structures, connections and the political facts from the statements made by the journalists and those responsible for the programmes, and in the end to draw their own conclusions for their actions in this society dominated by news.

The above-mentioned series "The Power of the New Media" cannot be dealt with until the 9th grade of school either, because a lot of background knowledge is necessary which the teacher has to pass on hand in hand with the broadcasts. In the case of the first instalment "Brave New Television World", which deals with uninhibited television 'consumption' thanks to total cabling and the resultant loss of the ability to communicate, the target group can certainly be a lower grade. But with the second programme on the "Brave New World of Work", in which there is talk of videotext, outwork at the computer and loss of jobs, it begins to get complicated – as with "Brave New Data World" as well, which takes as its subject the possibility of blanket registration by networking all different kinds of data banks. And, finally, the last instalment, "Brave New Economic World", in which the representative of a large company seeks new ways of boosting the sales of his products, calls for a highly developed understanding of satire. Various reports on the practical experience of techers who have used this series in their lessons – in lessons on politics and civics as well as on information sciences (!) – confirm this assessment by the programme producers and the Advisory Committee.

In the case of the series "Advertising Makes It Possible", which was developed specially for the upper grades at schools for the educationally subnormal, the members of the Advisory Committee were unanimously of the opinion, however, that this series could be used from the 7th grade in the other types of school. It must be due to the film plot running through it and the possibility to identify with the sympathetic main character, Thomas, that many primary school teachers dealt with the broadcast in their 4th grade. We know this from the letters received: on request the classes were sent free stickers – there was a big demand. It turned out here that some vocational schools as well and 9th and 10th grades at the grammar school had no trouble in working with the broadcast.

The dramatic concept envisaged an advertising agency as the scene of the action. Taking the example of a sales campaign for a soft drink, the pupils were meant to realise who makes advertising, who commissions them to do so, for what purpose advertising is made, to whom this advertising is addressed and which costs arise. The global learning aim intended was to enable the pupils to evaluate advertising critically, to see through dependencies and manipulations and thereby to learn how to better determine their own role as buyers and consumers. The many positive letters from teachers and schoolchildren have strengthened our belief that this broadcast achieved its aim with regard to media education.

It is not always possible to definitely decide to which subject a programme on the media could be allocated. The dividing lines are often fluid: the news can certainly be used in lessons on politics and social sciences as well as in the German lessons. In the case of "Advertising" individual aspects can additionally be taught in the topical work, in Economics and in Art Education.

It cannot be generally said whether a feature film is better received than a documentary – that varies from case to case. While watching the two parts of "Videoclips" the pupils are very fascinated when the camera shows how the starlet Sandra produces her clip "Innocent Love'. But it was our experience that the opportunities for identification, for becoming personally involved, which seek possible ways of solving one's own actions, are very well furnished through the plot. However, it cannot on any account be our intention to supply, together with information on existing conditions, the recipe at the same time on how to change them. It is the pupil's own job to think about this, and the broadcast can, at best, provide the impulse for doing so.

Promoting media competence

I also understand my assignment as a producer of programmes on media education in that vein: to promote the pupils' ability to handle the media ("media competence"), to show them ways of analysing their own media world, which is, of course, increasingly shaped by the new information and communication technologies, and, over and beyond this, to develop alternative, self-determining forms of action.

An example can make this clear: "Donald Duck and Co" is a three-part series for the primary level which shows the production of comics, examines their special picture language and describes the advertising and sales methods of the publishers and the marketing of comics figures. This series is, it is true, intended to make the pupils understand how comics are made and by whom, to encourage them to draw comics themselves and to analyse popular comics – but it does not want to run them down. An evaluation is not given and is not intended either.

This also applies to the series "Dallas, Denver and the Consequences", which it should, as we see it, be possible to use from the 8th grade. Using selected examples, the questions are raised as to why television stations have recently increased the number of family series in their programme – and preferably German series such as "Black Forest Clinic", "Guldenburgs" and "Lindenstrasse" –, which criteria the authors apply to structure their plots and characters, where they find their models in light fiction, how the series-stereotype functions and how, finally, the heroes from the series are successfully marketed.

It was not the intention of this broadcast to stop the pupils continuing to enjoy watching nasty J.R. pursuing his shady affairs or the heroic Professor Brinkmann performing his noble deeds. The pupils should still be able to decide for themselves whether to watch a certain programme. Perhaps the pleasure they take in watching television will even increase when they know which recipes are used to prepare their fare of light entertainment.

It is a little different with our single broadcast "With Film Blood and Papier-Mâché", which we produced jointly with the Institute for Media in Science and Education FWU. Revealing a few tricks of the horror film makers, this 30-minute film aims at helping young viewers of this genre – who possibly watch horror films involuntarily, subjected to group pressure – to escape the fascination of the terrifying pictures by describing how and why such films are made.

Perhaps fears can be overcome if the child viewer knows that special cameras, elaborate computer-controlled masks, noises added later and skilful editing can convey horror by suggestion. At least the broadcast provides enough material for discussion in the class and possibly opportunities for the pupils to talk about their

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own consumption of horror films as well. For it is really undisputed that these films have not disappeared from the scene just because the media no longer report about them in accordance with the new legislation.

Media criticism in "Schoolchildren Make Films"

This can also be seen from the subjects suggested for films which young people regularly offer us for the series "Schoolchildren Make Films". Vampire scenes, hair-raising chases, explosions, bloody fights, invisible evil – these left-overs from the gripping adventure and science fiction films crop up again and again in the fantasy of pupils who want to make a "genuine" film along the lines of the "great" Hollywood movies. As far as they can be realised, these projects are interesting attempts to come to terms critically with the pictures – which are provided – in their own heads.

This series is especially suitable for conveying media competency. It has existed since as long ago as 1973, and each year eight broadcasts are transmitted. The range of subjects of the films broadcast is evidence of the young film makers' vivid imagination; even though certain subjects from school, from family life, from leisure time and the group scene have been treated time and time again in the course of the years, the way each team turns them into a film is always new.

What has remained unchanged however are the pictures which the pupils show of the media behaviour of their parents throughout the years: parents usually sit, impassive and silent, in front of the goggle-box when their offspring have problems. The television programme itself is described as rather unattractive, and young people do not regard it as an alternative to other leisure time pursuits. But another medium plays a large part: there are numerous scenes in pupils' films in which boys and girls after having had a row with their parents or teachers storm off into their own rooms, turn the volume up to its maximum on their record player and "absorb" the music.

Chapter 7:
Research into School Television

Titti Forsslund

European School Television Research in the 80s – A Literature Review of Current Directions and Central Issues*

Many questions arise from the preoccupation of producers, planners, decision makers, government officials, and politicians with school television. How do we arrive at answers that satisfy the various needs, at evidence of school television's worth, and at information that helps to enhance programming?

Within some educational broadcasting organisations there are special research and evaluation units, in others the organisation's audience research department or outside researchers are used, if any research or evaluation is done at all. In addition, Education Officers attached to educational services or departments, for example those at the BBC and ITV in Britain, provide another way of getting feedback, assessing needs, or piloting programmes. The resources for these activities seem to be decreasing, however.

Most school television research in Europe today seems to be quantitative, i.e. surveys on the use of school television with implicit questions about how to increase the utilisation. There do not seem to exist many studies on the effects of school television, and in my international overview I have not found a single cost-benefit study. Formative evaluation also seems to be rare today, although in most other sections of the "industry" it is a matter of course that new products are tested before big series are produced and promoted.

In the seventies more formative research was conducted in order to develop and enhance the programmes. Yet there is still scope for enhancement, which is seen in evaluation studies indicating that many programmes tend to be too difficult and confusing for the target group in question. That concerns, for example, abstraction level and language (Beneke, Wagner, Wieczerkowski, 1981; Geisler, 1976; Salzinger,

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* References for this article are integrated into the bibliography at the end of this book.

1975), humorous distortions (Weaver, Zillman, Bryant, 1988) or story line (Hoffner, Cantor, Thorson, 1988).

Educational broadcasting – as well as the general public service – broadcasting – is threatened by commercial broadcasting and new technologies all over Europe. In March 1990, a research seminar into educational television was held in Tel Aviv under the auspices of the European Broadcasting Union.[1] The seminar set out to analyse the future roles of research in light of the new challenges faced by educational television broadcasting in the nineties. Another of its aims was to review the findings of educational television contributions to various target groups.

This article, originating from a paper presented at the Tel Aviv seminar, is based on an international overview of surveys on utilisation of television in school as well as evaluation and implementation studies of various school television series. It focuses on factors that influence the use and impact of school television.

Utilisation of television in schools

The contribution of educational television for schools depends very much on how the programmes are used and whether they really are used at all. Figure 1 (p. 447) composes the proportions of schools and teachers using television for teaching in different countries, based on figures gathered from various utilisation surveys done in Europe. For reasons of comparison, some figures that were available from Japan, Australia, Canada and the USA are also included.

Since the school system differs from country to country and the utilisation surveys do not use the same time or measure units, the comparison is not perfect. In the five countries at the top of the figure, the schools are used as the unit of measure: Japan (Akiyama and Kodaira, 1989), Britain (Symons, 1991), The Netherlands (van Zon, 1991), Israel (Peri and Tal, 1991) and Australia (Black, 1989). In the other ones, use of programmes by the teachers is the unit of measure, i.e. in the studies from Sweden (Forsslund, 1991), Canada (Tobin, 1990), Belgium (Santy, Laurent, Plasschaert, 1990) USA (Svensson, 1985), Germany (Kolley et al., 1989), Austria (ORF, 1984) and Norway (Lund, 1985).

This can mean a significant difference: if, for example, half of the teachers at every school used television in the year or term measured, the figure would then be 100% of the schools, while it would be 50% of the teachers. However, from Britain we have learnt that, apart from the regular registrations of schools receiving each series, interviews with teachers have indicated a very frequent use of school television (Moses and Croll, 1991).

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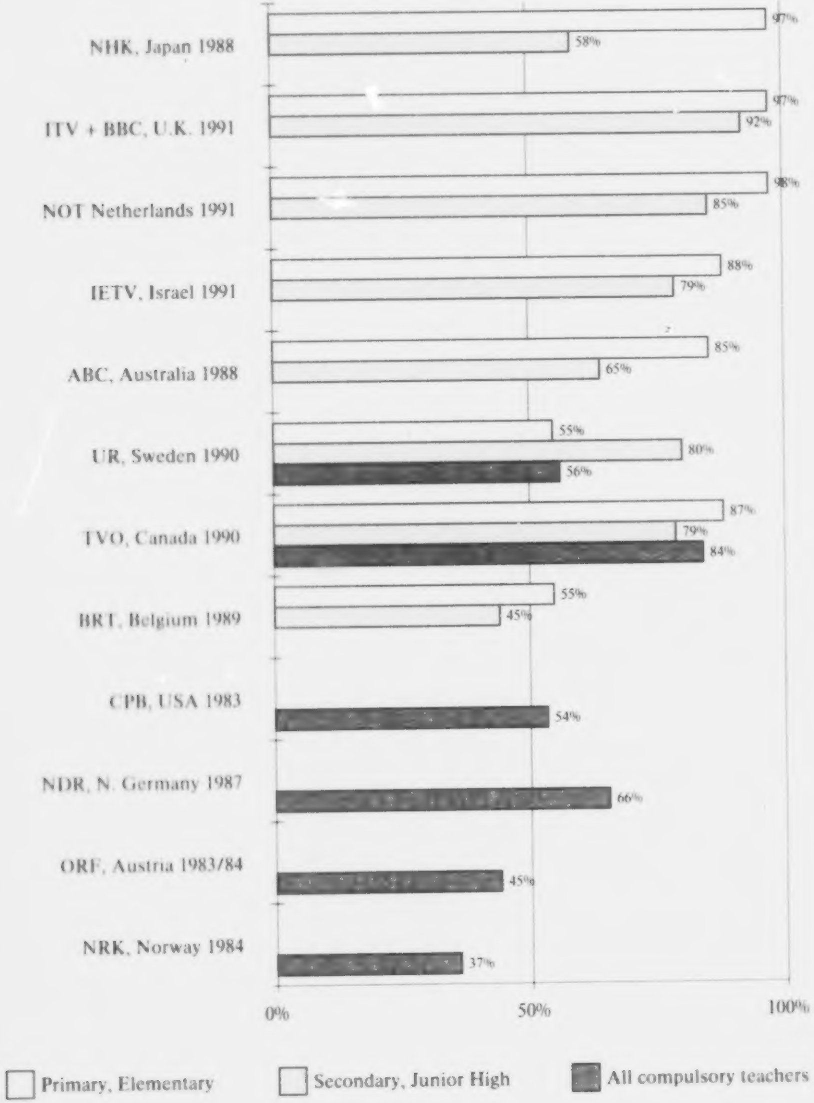
[1] In: Tidhar, Ch.E. (1990): ETV Broadcasting Research in the 90s. This is a slightly edited and updated version of an article based on this paper which has been published in the Journal of Educational Television, Vol. 17/1991 (s. Forsslund, 1991).

Figure 1: Use of television in school. Percentage of schools (or teachers) in different types of schools using television for teaching.



The rate of utilisation of educational television seems to be very high at primary-school level in most countries. In Sweden, the rate of use is higher at secondary level. Different factors influence the utilisation of school television; broadcast services to teachers as well as factors beyond the control of the broadcast organisation, such as teachers' access to equipment.

The relation of school television to the curriculum is an important factor, as are the attitudes of teachers and pupils to school television and to television as a medium per se. Teachers' methodological use of school television, their teaching style, also influence the impact of school television on children's learning, to be discussed later.

It should be noted that it is not only school television programmes that are used for teaching. Teachers also use programmes from the general output (Kolley et al., 1989; Symons, 1990; Forsslund, 1991) as well as videocassettes produced by commercial companies, as we shall see below. Moreover, quite a few teachers are not aware of the origin of the programmes they use for teaching, a reason why it is not always possible to measure the use of only school television (Forsslund, 1991).

Factors influencing school television utilisation

Quantity and variety of school television programmes

The amount of use is of course very much dependent on the number of school television series broadcast for the target group in question, assuming that the programmes are designed to meet the needs of the target group.

In Japan and Britain where almost every primary school uses school television, there were 30 – 45 school television series broadcast in the years measured (i.e. 1989). In Sweden, on the other hand, where less than 60% of the teachers at the primary level used television in the classroom, only about 10 series aimed at the primary level were broadcast.

Over a period of 20 years there has been a decrease in Sweden in the use of school television at primary level (from 7 – 9), from about 80% in 1968 to 40% in 1987. The factors which may account for this are a decrease in the number of school television programmes produced during the eighties and the prevailing debate in the eighties on the negative effects of television and video on young children (e.g. Postman, 1984, 1986).

A recent Swedish survey (Forsslund, 1991) indicates a break in this trend by a slight increase in utilisation at primary level. At secondary level (from 14 – 16) there was a continuous increase in the use of television during the eighties, partly due to the increase of access to videorecorders (Forsslund, 1987, 1988, 1991). Nevertheless, as Figure 1 suggests, television is widely used in schools in industrialised countries.

Easy access to videorecorders

In spite of an increasing stock of video programmes available through video-libraries in Sweden, current broadcast series are used more than earlier broadcast series; they are usually not used during transmission, but as video-recordings. As the last survey shows, not a single teacher relied solely on off-air broadcasts (Forsslund, 1991).

Figure 2 (p. 450) shows that today videorecorders are available in most of the schools in the countries mentioned.[2] It is more common to have access to videorecorders at secondary level than at primary level. This is particularly the case in Belgium and Australia. At secondary level the fixed schedules for different subjects make it more important for the users to choose their own time for watching.

In Sweden, there are local audio-visual centres which record the educational programmes off-air and distribute cassettes to the schools. Teachers also record the programmes themselves at home for subsequent use in the classroom (Forsslund, 1991).

Schools are also provided with videocassettes from various kinds of organisations (Moss, Jones and Gunter, 1991; Forsslund, 1991). A Japanese survey indicated that in 1986 teachers in over 80% of the senior high schools made their own recordings for teaching. In Japan it is also common to buy video-cassettes for school use from commercial producers (Akiyama, 1988).

Regular transmission slots at suitable times with repeats

Another important factor is the planning of regular slots in the broadcast schedule at suitable times and with regular repeats so that the time for regular watching or recording can be remembered by individual users (habituation). This factor was identified in an evaluation of the American series "Thinkabout" (Sanders and Sonnad, 1982).

Programme series

Programme series are more likely to be used than single programmes at primary level. In a British study (Moses et al, 1988), 85% of the programmes used were part of a series, which the teachers used regularly.

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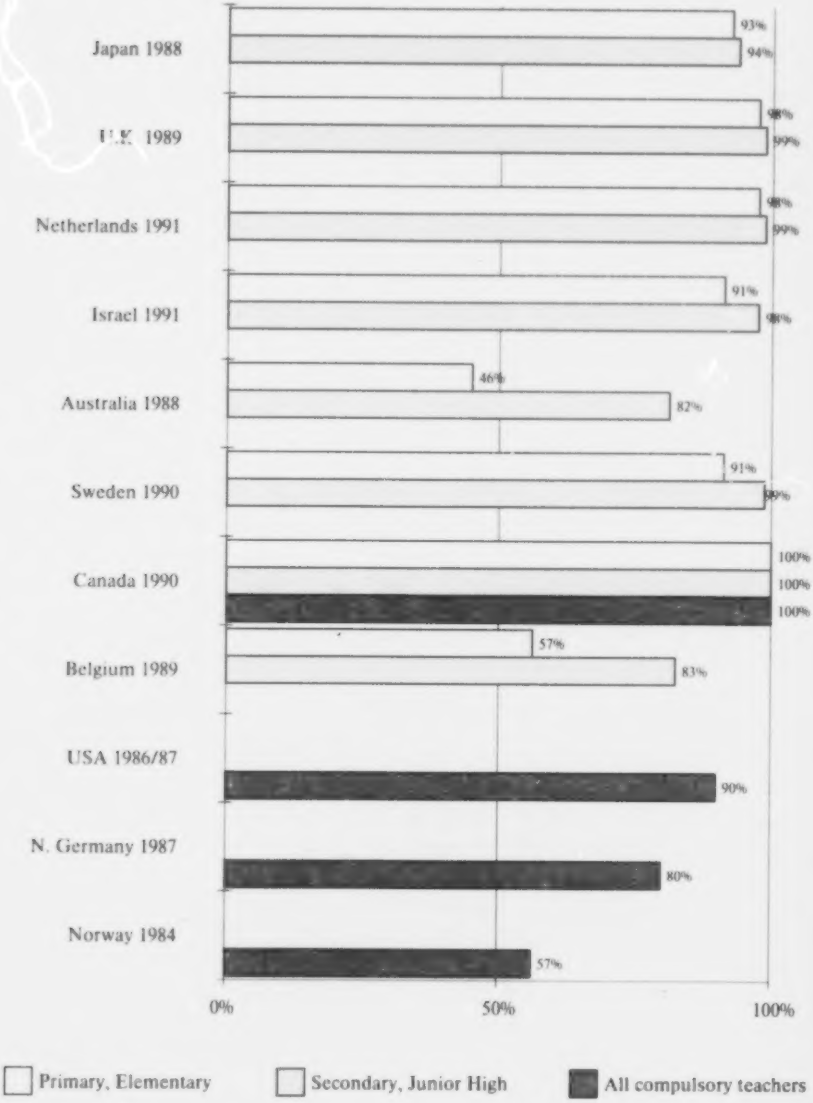
[2] Sources of data are Akiyama and Kodaira (1989) for Japan, Symons (1991) for Britain, van Zon (1991) for the Netherlands, Peri and Tal (1991) for Israel, Black (1989) for Australia, Forsslund (1991a) for Sweden, Tobin (1990) for Canada, Santy, Laurent, Plasschaert (1990) for Belgium, Svensson (1985) for the USA, Kolley et al. (1989) for Northern Germany, and Lund (1985) for Norway.

Figure 2: Access to videorecorders in school. Percentage of schools (or teachers) at different levels.



In a survey of primary schools in the Netherlands (van Zon, 1985) there was a general wish for six or more programmes per topic, broadcast in weekly intervals.

In an American study (referred to in Svensson, 1985) primary school teachers preferred complete series, running over a term or year, while 75% of the high school teachers preferred individually selected programmes or mini-series.

Advance information and support material

To be able to put the programme into a teaching context, the teacher needs to know the content of a programme before using it in the classroom (Tulodziecki, 1978), i.e. the teacher either watches the programme in advance, or s/he acquires sufficient information about the content through some written advance information, if not via colleagues.

In almost every report on teachers' wishes and needs, there are complaints about a lack of sufficient advance information on programmes. This seems to be more common in the countries with a lower use of television and fewer broadcasting programmes. (Salminen, 1986; Forsslund, 1988; Lilja-Svensson, 1985; Kolley, 1989; ORF, 1984; Lund et al., 1985).

Teachers want detailed descriptions of the content, sufficient information on the suitability of the programmes for different age groups, and better programme information in newspapers, on radio and on television.

This is true for most school television programmes, but not for news or current affairs, which only well-informed teachers dare to use without knowing what will come up. A general guide on methods of handling these kinds of programmes would be of invaluable assistance (Forsslund, 1983).

Only in Britain, with its high rate of utilisation and high amount of school television series, do teachers seem to be satisfied with the information supplied, according to Symons (1988).

In virtually every case the provision of teachers' guides is requested. Many studies (Arinen, 1986; Sanders et al., 1982; van Zon, 1985) indicate that teachers also want more and easier activities for the pupils.

School television and curriculum subjects

In general, it seems that there is a positive correlation between the utilisation of school television programmes and their closeness to official curricula. Programmes adapted to the legislated or national curriculum are more likely to be used, as they do not occupy time needed for the overloaded syllabus. This factor has been identified by several studies (e.g., Forsslund, 1988).

There is a considerable number of research reports on the successful application of school television in a variety of subjects. The present state of the art of this form of research, generally carried out with subject-specific didactic considerations in mind, is not the task of this paper.

The following examples serve to illustrate some of the research issues in connection with subject-related school television research.

As far as reading skills and language development are concerned, the Children's Television Workshop series "The Electric Company" proved to be of special value for underprivileged pupils (Greenfield, 1984). A study of the Israeli series "No Secrets" demonstrated the importance of professional mediation for learning from television among children from culturally deprived homes (Tidhar, Wohl and Peri, 1988).

In his research on primary schools, the late Ernest Choat has found that most teachers use school television, whatever the subject of the programme, as a resource to aid the development of language and reading skills (Choat, 1988).

It is obvious that the use of television for foreign language learning can be of great value, especially when focusing on communicative competence with the aid of televised spoken language including non-verbal features. However, the level of language and pace must be well adapted to student ability (Geisler, 1976; Kodaira, 1989).

Television programmes for mathematics instruction can increase pupils' math test scores, when properly used, as a study on the effects of the American maths series for the intermediate grades "It Figures" shows (Witt and Johnston, 1988). Proper use means that the programmes are placed within a context of specially designed instructional activities before and after the broadcast. The study found that neither television alone nor activities alone were as effective as the two together.

Surveys and interviews with Swedish teachers on the needs and use of programmes on science and technology have shown a great need for new science and technology programmes (Forsslund, 1988; Hugo, 1988). Pupils are likely to benefit more from those programmes than from study visits to certain environments, for instance computer companies.

In USA, Keith Mielke and Milton Chen (1983) carried out child-based formative research of different types, on the Children's Television Workshop series "3-2-1 Contact" on science and technology for 8 – 12-year-olds. The research indicated that children appreciated the realistic, sometimes serious tone of the documentary films. Contrary to initial hypothesis, a clear statement as a kind of educational "headline" tying together the segments was not seen as didactic by the children. In fact, when such connective material was not present, viewers did not perceive any unifying theme and viewed the magazine format as an assortment of "just a lot of different things".

The children's eagerness to discover information about the world around them coexisted with an appetite for dramatic conflict, fast-paced action and situation comedy. Science content need not to be minimised in order to be entertaining, Mielke and Chen claim.

Extending the curriculum with school television

School television has also shown to be a good tool for extending the curriculum by introducing topics that normally do not fall within the province of traditional curriculum subjects. The kind of knowledge that teachers ask for is related to human development and good social relations: learning how to learn, critical thinking, creativity, expressive and communicative capacity, democratic modes of behaviour, norms and values (Forsslund, 1983, 1988; Moses and Croll, 1989). It is in these areas where teaching and learning seem today to be most important; educational innovation and development are required, as well as encouraging pupils' self-confidence in order to make them resistant to the use of violence and the oppression of other people.

Developing thinking skills

"ThinkAbout" is one of the most ambitious instructional television projects in the history of the United States, according to Jim Shea at the Agency for Instructional Television. "The most striking change was the change in curriculum" (Sanders and Sonnad, 1982). Topics were covered that ordinarily were not dealt with in other resources, and many teachers reported sustained use of the series.

Research showed that pupils improved in each of the thinking skills that the series aimed to develop. Around 50% reported a high or very high degree of success in relation to strengthening pupils' abilities in problem solving, systematic reasoning, flexible thinking, effective expression, independent learning, and the management of pupils' own learning.

Culture

Results of an implementation study of the Swedish series of 16 television programmes concerning culture ("Solkatten") aimed at children from 8 – 10, indicated that teachers who consistently watched the programmes developed a new and wider concept of culture. Besides enhancing receptivity to different forms of culture and artistic expression, the varied contents of the programmes also stimulated the teachers to discover new ideas on working with culture in school. The main target group of the programmes, the children, were also stimulated to pursue various creative activities and discussions, however it seems that those who have the greatest need for programmes like these are the teachers (Lilja-Svensson, 1985).

Changing attitudes

Television affects children's attitudes, albeit to a varying degree and subject to circumstances. Changes in attitudes concerning race relations, as aimed at by Granada TV's series "Our Neighbours" for example, has been demonstrated by Kemelfield (1972; quoted in Bates, 1984) and by Fairchild (1984).

Research on the American series "The Big Blue Marble" proved that international awareness can be influenced (Roberts et al. 1974; quoted in Bryant et al, 1983).

That television may help to combat sex-role stereotypes (e.g. the American series "Freestyle") has been demonstrated by Johnston and Ettema (1982).

Media education and the development of communicative competence

In Sweden, two different television series on communication have proved to be especially helpful for children with an aversion towards school and who were thus poor performers: "Animated Film" (Celsing and Lilja-Svensson, 1985) and the international project "Handle with Care" (Hultgren, 1989).

These two projects have shown to be particularly good for developing language and self-confidence among underprivileged children. Moreover, they have proved capable of stimulating work and learning in accordance with the new Swedish curriculum dealt with in the next paragraph.[3]

Van der Voort and Vooijs (1988) evaluated the Dutch school television series "Watching Television Differently" and found that the course was highly valued by the children, especially the sequences in episodes taken from a popular television series. The course was perceived as being instructive and the majority of the children stated that while watching television at home, they sometimes thought of the lessons and observed elements they had not noticed before.[4]

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[3] For a detailed account of this project, see Suzanne Forslund: "Handle with Care" – A Case Study of International Cooperation; this volume pp. 245 – 255.

New demands

New demands, emerging for example in connection with reforms in the legislated curricula, make teachers ask for programmes that help them to teach new subjects and that can be used for in-service training on teaching methods. A good example is Britain, where science and technology are singled out as the greatest need, because of the new National Curriculum and because only a minority of teachers have either qualifications in, or experience of, teaching these subjects (Moses and Croll, 1989).

In a survey in Sweden (Forsslund, 1988), teachers asked for programmes for in-service training on the teaching methods that the new Compulsory School Curriculum had prescribed five years earlier, perceived by many teachers as ethereal "poetry", as they find it difficult to realise owing to structural factors such as: number of pupils in one class, the pupils' socio-economic background, immigrants from many different cultures and languages, fixed schedules etc. It is also a question of educational philosophy, teachers' views on children and their knowledge of children; there may be even contradictions as to what teachers experienced when they themselves were schoolchildren and what they learnt in their teacher-training courses.

Terms are used in the Swedish Compulsory School Curriculum like "activity-pedagogy", "thematic work", "projects", "cooperation", that are just words with no substance for many teachers. They ask for programmes which concretise demands by showing good examples of teaching.

Attitudes to school television

In spite of the negative debate on television and video in the lives of today's children, predominant in many countries during the eighties, teachers still ask for more school television programmes. In a 1987 Swedish survey, 56% of the compulsory school teachers expressed ideas for new programmes and about half of the teachers stated they would like to use school television more than they did. This is true both for users and for non-users (Forsslund, 1988).

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[4] Cf. Van der Voort: "Watching Television Differently'; this volume pp. 549 – 555.

This study revealed also that practical barriers frustrate teachers' intentions to use more school television. For example, access to equipment is made difficult if there is only one set of television and video recorder equipment which has to be booked in advance and moved from another floor or building. There is also lack of information about programmes, a shortage of programmes for certain subjects and levels, and a notable lack of programme quality.

The perception of television as a medium for learning or entertainment among teachers and pupils is one factor which may influence the way in which the programmes are used in school. Studies in the USA (Sanders et al., 1982) and in Sweden (Celsing et al., 1985) have shown that the pupils perceived television in the classroom differently compared with teachers. Pupils perceived it often as a break from work, teachers as just another method of instruction. Other researchers in Finland and England have found that both teachers and pupils continue to think of audio-visual material as entertainment and fill-in rather than as an integral part of the teaching and learning process (Salminen et al., 1988; Bell, 1987).

According to Salomon's theory, the Amount of Invested Mental Effort (AIME) depends on the different types of expectations which the users build up on the basis of their experience of different media (Salomon, 1983 a, b; Salomon and Leigh, 1984). The effect of perceptions on mental effort is important because the theory assumes that more mental effort results in deeper processing of information, an assumption supported by research on human learning and memory (Horton and Mills, 1984).

Since television in general offers many programmes that place low demands on its viewers, its level of difficulty is perceived to be low, according to Salomon and Leigh (1984). They found that mental effort and perceived self-efficacy (capability of obtaining information from a medium) did in fact correlate positively for books (the difficult medium) and negatively for television (the "easy" medium).

Salomon and Leigh (1984) also found that low-ability pupils (sixth-graders) performed better with a televised story than with print, and with television they even performed better than high-ability pupils, while high-ability pupils performed better with print than with television.

It has also been suggested that some children – maybe the more frequent viewers – are more visual-literate than other children (Buckle and Kelley, 1990.) Frequent viewers of television and video usually come from the lower working class, at least in Sweden. School achievement has also been found to be a significant factor in the use of video. Below-average achievers tend to watch video more frequently (Johnsson-Smaragdi, 1988).

A recent Dutch replication of Salomon's study (Beentjes, 1989) confirmed the hypothesis that children invest more mental effort in reading books than in watching television. For some books and programmes, however, the differences in mental effort were minimal or even non-existent. The perceived self-efficacy appeared to depend on the topic. Some topics were thought to be more easily learned from books, namely grammar and spelling, calculating the surface of a triangle, and solving mathematic problems. These are school-related topics which are typically learnt from books in the Netherlands, Beentjes states.

Other topics were thought to be more easily learnt from television, e.g. how plastic is made, why World War II broke out, the rules of football and of basketball. The research did not, however, consider that the Dutch children may already have had experience with TV presentations of those topics that were thought to be learnt more easily from books, which might have influenced these results.

Other studies (e.g. Witt & Johnston, 1988; Choat, 1988; Tidhar et al., 1988) show that mathematics and language learning may be developed very efficiently with the aid of school television.

Cultural differences

According to the study by Beentjes (1989), Dutch children – unlike their peers in the United States – do not unconditionally regard television as the easier medium; and in an earlier study by Salomon and Cohen (1978), it was found that Israeli children were more serious about watching television than American children.

Tidhar (1987) has also pointed out differences between American and Israeli children in the understanding of central events and motives in family comedies, which may be attributed to the general approach to television in Israel. She claims that it is the extensive use of television in the schools with continued teacher's guidance, a long history of exposure to educationally oriented programmes, and family viewing habits where the young viewer watches television in the company of an adult or older sibling.

Greenfield (1984) claims that "Sesame Street", when it was tested in rural areas in Mexico, failed to achieve its learning goals. As Hilde Himmelweit put it: "The rapid change of scenes and characters, designed to hold the attention of American city children, proved distracting to Mexican children used to a slower, less jerky rhythm of life" (quoted in Greenfield, 1984).

The universality of the medium should not be an excuse for a new form of cultural imperialism in which the television "haves" indiscriminately distribute their programming around the world. The television "have nots" also need to consider the cultural suitability of programmes that are on sale to their countries, Greenfield claims, and I agree, coming from a small country in northern Europe.

So there seem to be certain differences between children of different media cultures and life styles. With the current commercialisation of media in European countries it will become more and more important to teach children how to use television in different ways. Good use of school television might influence the home-viewing patterns even on non-educational programmes, so people learn to gain more information from television.

Salomon (1983b) proposes to train children to invest more mental effort in television programmes by teaching them to raise questions, generate various kinds of inferences and the like, helping the children to build a self-image as serious and smart televiewers who can learn a lot from television.

Television literacy projects have been developed around the world recent years (Akiyama, 1988; Celsing and Lilja-Svensson, 1985), not only for fostering active and critical viewers but also on understanding images (Buckle and Kelley, 1990). Much remains to be done in this respect, particularly in the field of teacher training.

Strategies for using school television

Teaching styles

Several research studies on school television series have come to similar conclusions: Television series are sound tools, for example "when used correctly", or "when used by a teacher with an active teaching style", or "used in a way which enables children to make the necessary interpretations" for

- improving thinking skills such as problem-solving, systematic reasoning, flexible thinking, independent learning;
- explaining the world to primary-school children,;
- increasing economic knowledge;
- increasing mathematic understanding;
- improving language-learning and
- stimulating changes in behaviour and attitudes.

This begs the question as to what exactly is proper use. In many studies (Arinen, 1986; Sanders et al., 1982; van Zon, 1985) teachers have asked for print material such as work sheets, with ready-made questions to give to their pupils, so they know in advance what will come up after a programme. They do not seem to be broad-minded enough to dare to let their pupils come up with their own questions.

In the evaluation of the American series "Think About" mentioned earlier (Cohn, 1982), classroom observations revealed examples of different teaching styles. One teacher whose trademarks were acceptance and lack of questioning did no advanced preparation for the programmes. Her reasons for using instructional television was that it required no prior planning as she expected explicit directions in the Teachers' Guide. She did not bother about pupils' grasping the programme concept; completing all the questions given in the guide was the only thing that mattered.

Another teaching style is represented by a teacher whose over-arching goals for pupils were the ability to think and to clarify their own values. He asked open-ended high-level questions and pressed for well-developed and thoughtful answers. He tried to link individual sessions to larger themes and demonstrated interest in the whole child rather than the child as a pupil. Finding the suggestions in the Teachers' Guide too general and abstract, he created his own introductory and follow-up activities.

Ernest Choat (1988) claimed that the philosophy of primary-school education in Britain has undergone radical changes in recent years. Previously the curriculum was subject-centred with children's well-being as a secondary consideration. The position is now reversed with a child-centred approach that considers the child's physical, social, emotional and intellectual development. This recognition of the child as an individual is not reflected in the use of school television by teachers.

In a British study from 1986 (Choat, Griffin and Hobart, referred in Choat, 1988) it was found that school television was regarded by the majority of the teachers as a "view and follow-up" phenomenon that had little or no relationship with the other activities the children were pursuing. Not much preparation before viewing was to be found. Direct follow-up by discussion on what had occurred in a programme appeared to be the norm. These discussions usually centred around what the teachers had perceived in the programme and what they imagined the children had perceived.

Thomas (referred to in Choat, 1988) investigated primary schools and found that teachers wanted school television to show mathematics as exciting, practical, implicit in the environment and common language. However, most teachers relied on a structured follow-up with stipulated tasks related to a programme, instead of using the children's experiences and curiosity. The emphasis seemed to be on instrumental learning of mathematics. That is being able to give the correct answer without understanding why the method works. The teachers seemed rather unsure of the learning outcomes.

A need for teacher training

Choat (1988) concluded that emphasis on structured and direct follow-up, class and mass-viewing and concentration on skill acquisition indicates a bias towards instrumental use of television. In his view, the existing situation reveals an urgent need for a vastly increased in-service programme for teachers. Despite developments in information technology, the use of school television has been largely ignored on the assumption that television is a simple thing to use.

Convery (1990) described his action research into how he used television in his teaching. His study led to changes in his management of the classroom by using television programmes as a learning resource for group-work in small groups rather than as a teaching aid for the entire class, assuming that learners need to construct personal understanding by controlling the delivery of information to suit their own learning style. The very presence of a teacher may restrict the development of a range of responses and individual tests of interpretations.

Convery also suggested that the emphasis might be placed on pupils learning with the aid of television, rather than from television, using the medium to stimulate educational activity rather than just deliver educational information. "By giving control of the television to the pupils one is thus demonstrating respect for their knowledge and potential". This might strengthen the development of personal confidence and autonomy in pupils (Convery,1990).

Further research questions

Teachers do not ask for information about the theoretical basis of programme series. Do producers make explicit the underlying philosophy guiding the production? Do they articulate the educational purpose of the programme and how the programme is intended to be used? It has been stated that this is far too often not the case (Bates, 1988). So how can the teachers get a fair chance to use the programme in the way the producers intended it to be used? And to what extent do researchers analyse not only the learning outcomes, but also the learning processes?

Research into producers' intentions and the use of programmes in practice, by teachers and pupils, might help us to improve the usefulness of school television. Following Convery (1990) and going a step further, I would suggest a collaboration of teachers and pupils with professional researchers. I have successfully tried young children as "co-researchers" in my research on mental imagery in children's listening experiences (Forsslund, 1986).

Another important research question is to explore the potentialities of school television in making school work effective for the disadvantaged or underprivileged children. Television seems to be a better medium than print for "low-ability" or underprivileged children, who should have the same right to benefit from school as the more privileged or gifted children, with a language background more like that of the traditional school.

The question must be put: What has school done to the people with severe reading and writing difficulties? Why are prisons and mental hospitals populated with people with that kind of problems? What did they learn at school? In Sweden we have seen that television is a very good medium for recruiting adults with reading and writing difficulties for study (Forsslund, 1981), but how can school television be a hindrance in this learning process when children go to school?

Television as a medium is able to communicate things visually which normally fall within the province of verbal language. It can render abstract concepts concrete and visual, which is important, especially for disadvantaged children with poorly developed verbal language skills. Every child should have a right to benefit from school and to learn in its own way in order to gain self-confidence and gradually acquire verbal and written language.

Christopher Jones

What Do Teachers Expect from School Television?

In the United Kingdom schools have been fortunate that many years ago the government education department encouraged the purchase of television receivers as standard equipment. From the early 1970s it was taken for granted that new television sets should be able to receive colour, and from the mid-1970s video-recorders began to be seen as essential to the effective use of broadcasts. Virtually all of the 5,600 secondary schools have been equipped with video-recorders for many years now, and more recently nearly all of the 27,000 primary schools have at last reached that level.

This has allowed broadcasters to be confident that the resources put into broadcasting television for schools will be well used. Yet it is difficult for broadcasting managements to see the change that comes when school television ceases to be a concession, a form of patronage, and becomes an essential to planning in the schools, and an essential tool for curriculum change.

During the three years from 1989 the process of planning for major changes in UK independent broadcasting (ITV and Channel Four), and their hidden implications for changes likely when the BBC Charter would expire in 1996, will have coincided almost exactly with major changes in school management and the discussion and introduction of a National Curriculum. Both aspects of change have been the subject of fierce political debate, and often by vehement dissent from those affected. Steering a well-judged course between Scylla and Charybdis has been the task of educational broadcasters.

It must be pointed out immediately that what teachers expected from school television and what government agencies advocated was by no means the same thing. The fundamental philosophy has had to be that, if there were to be major changes in schools, school television had to do everything possible to help – by clarifying the best practice and easing the pain.

Clearly it was necessary to establish the way television was used and organised in schools, the way the changes imposed by the 1989 Education Reform Act should affect the programme planning, and at the same time to use the opportunity to test out various alternative possibilities for broadcasting school resources. The decision was made to undertake a major research project, and although the data gathered is open to much further analysis, a complete overall picture from this project is given in the book "Television in Schools".[1]

Factors in decision-making and use in schools

During the school year 1989/90 the UK Independent Broadcasting Authority, which was the broadcaster responsible for the ITV and Channel Four services, commissioned this three-stage research project to explore the use of television in a representative sample of schools. The project was initiated at the request of the IBA Working Party on the Future of the Schools Television Service. This Working Party had been formed the previous year to recommend the shape of a future school television service once new legislation on broadcasting was in place. The research was already under way when the Broadcasting Bill showing the draft legislation was published in November 1989, and the direction of the research changed in the light of several influences.

The first, and most important, influence was teachers themselves, and those concerned with receiving broadcasts as a resource in schools. They were asked to speculate freely and intelligently about the future of broadcast resources.

The second factor was derived from how those in schools saw the implications in the Bill. Ironically, after 32 years of school television in Britain, this established for the first time a legal requirement to ensure a school television service. It is likely that most teachers saw the section on school television as simply confirming the continuing existence of a well-established service within the new situation. From the perspective of the schools the Education Reform Act, with its changes in the governance of schools, in the financial management of school education, and the imminent introduction of a statutory National Curriculum, most of whose detailed contents were then unknown, lay much higher on the list of concerns about the immediate future.

An additional influence was the evolving plans that the IBA would in due course pass on to the new Independent Television Commission. The original Working Party had been asked to look at alternative forms of transmission or dissemination. The purchase of videocassettes, transmission of school programmes at night, and transmission split across several transmission sources were all possibilities.

In theory a further possibility had been the transmission of the school television service by satellite. However, the publication of Section 31 of the Bill limited the service to Channels 3, 4 or 5 and at least for the foreseeable future it became irrelevant to follow up the implications of Direct Broadcasting Satellite transmission.

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[1] Robin Moss; Christopher Jones; Barrie Gunter: Television in Schools. London: John Libbey 1991.

A model to describe teachers using television

When it came to commissioning the research we had to use the experience of many years of liaison with schools to construct a model. This would shadow step by step what factors governed teachers' choices – whether or not they used television as a resource, and if they decided to do so what conditions had to be satisfied to allow television to be used effectively. Conditions not being satisfied by the broadcasters would constitute a factor possibly justifying a direct response.

If possible changes in the broadcasting system created difficulties where there had been none before, this, too, needed to be anticipated. If the difficulties were found to be within the schools themselves, it was likely that knowledge of relevant good practice elsewhere could provide a solution.

Most teachers solve any problems that face them in an ad-hoc way, responding to the conditions in their own school. Experience suggested that there would be many different kinds of situation. How could a generalised model be constructed?

We looked at a series of decisions that had to be made. Some would be instantly met and might not appear as "problems" at all. Others might prove to be common problems, or at least common conditions that had to be met and where systems had to be organised. These could be seen as a series of "gates" through which to pass, and approached from either direction:

- Equipment to receive television broadcasts was the first "gate" that had to be passed.
- Once the equipment was available the next "gate" to pass was whether the resource itself was available.
- Thirdly, the question of "trapping" the resource arranging for "live" viewing or organising videorecording.
- Next was the question of integrating the broadcast resource. Much school television is published alongside supportive materials in other media, now including microcomputer software.
- The next "gate" – that is, the next level of decision-making – is about delivering the curriculum. This currently popular jargon phrase particularly suits publishers of one medium or another. It is always important to realise that the publishers (and that includes broadcasters) are anticipating decisions that are the prerogative of the school in general and each teacher in particular.
- The end of this sequence of "gates" is evaluation. Of the many different levels of evaluation, the form of evaluation meant here is that by users of the resource in their own context.

These then are six levels on which a model of decision-making about school television could be constructed. It is unlikely that the profile of any one school's use, or the pattern of use in any department within the school, would exactly match the model. The point about the model was that it provided an amalgam of different profile components which could be a common framework for enquiry.

Discovering the value of school television to teachers

The principal aim of the project was thus to establish a more accurate picture of the value placed upon school television by its users, and to attempt to forecast possible patterns of use in the immediate future. It was a three-stage project.

In many ways the first stage was the most important. It was designed to diagnose what aspects were the key ones for investigation in depth. The agenda was not to be exclusively set by the broadcasters who were commissioning the research. In this vital pilot phase groups of teachers from similar areas of experience were encouraged to discuss freely their use of television in school.

Broadcasting education officers and researchers were involved in moderating one 'cell' in a network of small seminars. Their work was in parallel to that of fieldworkers engaged by a market research firm. The broadcasting staff involved had the experienced help of the director of this firm, who was asked to give a professional brief and advise on the 'cells'.

Each moderator had the target of convening a small group of similar educational status and preferably of people not already well known to each other. When inviting guests to join the seminar group, care was taken to avoid heads of department or 'line management' people, except as intended in the separately convened senior groups.

There were seven target cells in the sample, sometimes with more than one group seminar organised:

- primary heads, or teacher subject co-ordinators (from larger schools only);
- primary teachers with special experience in science and maths;
- primary teachers who are generalists;
- secondary heads/principals;
- secondary heads of department;
- secondary school technicians, resources officers and analogous resource management posts;
- secondary teachers with special experience in 'social sciences' areas of the curriculum;
- secondary teachers (science-related studies, incl. maths);
- secondary teachers (creative studies)

A neutral setting for the group meetings seemed important. They should be in a comfortable venue associated neither with broadcasting nor with any particular school. Guests would be made to feel welcome, but hospitality would be merely moderate.

The second stage used the indications from these discussions to prepare an interview schedule and questionnaire involving nearly 250 teachers in personal interviews. At each school a detailed census was arranged of the video-recording facilities.

By the third stage the objectives had been refined both from the illuminative Stage 1 free-ranging group discussions, and from the quantitative approach adopted in Stage 2. In fact a substantial part of Stage 2 was replicated in Stage 3, so that for the common part 969 interviews were completed in total (244 at Stage 2 and 725 at Stage 3).

The objectives to have emerged by Stage 3 were these:

- to assess the extent to that television and video were being used and what the sources of material were,
  - to examine attitudes in detail towards the use of television and video in schools and towards school broadcasts in particular,
  - to note the reasons why programmes were valued or criticised;
- to examine who played a part in decision-making about the selection and acquisition of material used in schools,
  - to assess the part that ITV and BBC information and liaison services played in resourcing the process of decision-making,
  - specifically, to assess recall of seeing the ITV and BBC annual programme catalogues for the current year, and awareness of ITV and BBC education officers liaising with teachers;
- to find out who within the school usually made recordings of the material used and how this was organised,
  - specifically, to assess reactions to the possibility of night-time broadcasting of school programmes, either in addition to daytime broadcasts or as a replacement, and the practical problems which night-time transmissions might present;
- to examine how video materials were stored and accessed within schools;
- to assess, with a view to the future, whether teachers would prefer to use television and video as much as they currently did, or more, and if so what would be the main barriers to further usage;
- to assess which types of application were felt by teachers to be most appropriate for school broadcasts.

Teachers' perceptions of the importance of television

Seventy-one percent of primary teachers and 44% of secondary teachers were using television or video once a week or more often. Over half the secondary teachers and more than one in three of the primary teachers would like to use television more than they are able now to do. The teachers were of course chosen by the schools to respond about television use, though the sample also included a fair proportion of infrequent users.

In that context the proportion who would like to use more rose to 60% amongst teachers who had said they used television less than once a week. This implies that lighter users are by no means rejecting the medium, rather that there are barriers to their making greater use of it.

What about non-users? The table below shows the numbers of teachers in the schools who were making no use of television resources.

Number of teachers in the school who make no use of TV or video	Number of Schools Total	Primary	Secondary
	149	73	76
	%	%	%
1 – 2	8	14	3
3 – 4	7	7	7
5 – 6	7	4	11
7 – 8	2	3	–
9 – 10	8	–	16
11 – 20	9	–	17
21 +	6	1	9
None	27	42	12
Not stated	26	27	25

Allowing for the double negative in the "none" line above, the table shows that in at least 27% of the schools all teachers made some use of television or video, and that this was so in 42% of primary schools but only 12% of secondary.

Teachers take charge of their own needs

The source of viewings confirms the impression that a considerable amount of recording is done at home. In the case of primary respondents, although 74% used recordings made in the school, 45% had used recordings made at home. For secondary teachers the corresponding figures were 75% at school and 56% had used recordings made at home. Nevertheless 45% of primary users were also watching broadcasts "live".

There were also significant proportions of teachers who used pre-recorded videotapes that had been purchased. What emerges is that teachers are quite flexible in arranging to obtain television for teaching.

Even at school about one in three teachers made their own recordings, and of these one in three started the recording manually as opposed to using the timer. Where recordings were made by someone else in the school, it was usually specialist AV staff in secondary schools but a variety of other people in primary. Those making their recordings at home showed more confidence – about four out of five used the timer.

It was assumed in our hypothetical model of the use of television in schools that the management of videos within a school must be a key factor in their usefulness as longer-term resources.

Where were videos stored?

	Primary (%)	Secondary (%)
In a central school library or TV/AV/resources room	41	21
In a departmental library	6	38
In own classroom	20	17
At home	11	20
Other storage	28	18

"Own classroom" or "at home" combines to show around one in three teachers personalising video resources. It is then clear that where there is any centralising of resources that it is mainly at departmental level in secondary schools. The same was true of systematic cataloguing, which was departmental in the case of 36% of secondary respondents.

However it must be a matter of concern that 63% of primary respondents and 42% of secondary said that there was no systematic cataloguing of video resources in their school.

How do teachers become aware of what video resources are available in school?

	Primary (%)	Secondary (%)
Talking to other teachers	17	18
Word of mouth	13	13
From staff/department meetings	36	37
Choose/preview from video shelves	23	7
Check from some form of print	44	62

In the table above oral recommendation seems to play quite an important part in decision-making. Various print sources are the principal means of becoming aware of what is available. The print sources are accumulated in the figures above – they do not represent any form of centralised information source, though of course the two Annual Programme books (ITV and BBC send separate catalogues of their plans for a year ahead), the curriculum subject leaflets, timetable wall-charts, primary topic charts are intended to be a coherent and complementary group of print sources.

In the same part of the analysis it was noted that the number of secondary respondents who did not know what was available (12%) was a not insignificant proportion, whereas in primary schools it was negligible.

Asked how they would become aware of school broadcasts not already available in school, it was the various forms of print, including TV Times, Radio Times and the national press, that were the main source. Two out of three primary teachers had seen both ITV and BBC Schools Annual Programme books.

Of those secondary teachers who recognised only one of the two many more recognised the ITV Annual Programme book than the BBC one. Nevertheless 25% of primary and 36% of secondary teachers responding here had not seen either Annual Programme book.

Selecting and deciding

Once teachers had sorted out what was available to use and where it could be found, we assumed that a process of selecting and deciding would be found. Teachers were asked who played a part in selecting the programmes to be used in school. In most cases the individual teacher had the main say in selection. Departmental heads had rather more say in choice at secondary level. There was no evidence of the kind of negative attitudes to television as a medium which were characteristic in the earlier

70s. Yet more than half the teachers in secondary schools would like to use television more than they now do.

What did teachers think about the extent of their use of school television?

	Primary (%)	Secondary (%)
Like to use it more	35	58
Like to use it less	1	0
Neither more nor less	61	41

Decision-making about using school television assumes a professional awareness of both availability and value. Yet in only 5% of the interviews with teachers was awareness credited to staff meetings, departmental discussions, head teachers or heads of departments. This seems particularly relevant to the aspect of the model described earlier in this chapter that dealt with delivering the curriculum. In known examples of good practice, a characteristic has been professional group discussions of the available resources and the best way of their being used.

To find out about the availability of suitable programmes, primary teachers were more likely to use the ITV or BBC catalogues (13% compared with 8% secondary) and secondary teachers more likely to use school catalogues (18% compared with 9% primary). This variation seems likely to be a natural effect of the differing sizes of primary and secondary schools.

A similar difference can be observed between the 18% of primary teachers who used a videocassette library (or shelf) to find out about available programmes, 6% more than among the secondary teachers. Accessibility here seems more a matter of scale than characteristic organisation.

In fact 65% of primary respondents and 38% of secondary reported that there was no systematic cataloguing in their school. Forty-one percent of secondary schools had catalogues organised at departmental level, with 27% holding the catalogue centrally. The video recordings themselves were kept in a central library in 34% of primary schools, and in a departmental library in 39% of secondary schools.

Of teachers who were more frequent users (once a week or more often) 26% kept their videos in their own classroom, and 10% at home. Thirty-one percent of these had access to a centralised school video library. The inference might be that frequent users are content if the library is available and well-organised, but defend the value of their resource at a personal level if not so.

What makes using television difficult?

With over half the secondary respondents, and about one in three of those in primary schools, declaring that they would like to use school television more, just why is the resource perceived as being insufficiently "available"?

A wide range of factors inhibiting use of television or video were mentioned. The highest factor seems to be difficulty in access to television equipment. In primary schools timetabling problems were mentioned by about one in five teachers, but very few found any lack of suitable programmes. But at secondary level one in four teachers felt that there were insufficient suitable programmes, or that the programmes strayed too far from the syllabus.

From the project data the inhibiting factors seemed to be these:

- the need for more equipment (23% mentioned this)
- limited access to the available equipment (21%)
- perceived lack of relevant or suitable programmes (9%)
- organisational problems, pressure of time.

The latter, which included factors such as moving children to other rooms, was felt by 12% of secondary teachers compared with 6% of primary teachers. In general it is characteristic of primary schools that teachers tend to remain in the same classroom with the same pupils, whereas in the secondary school the pupils move frequently from one classroom and teacher to another. Presumably secondary teachers here see moving to another room for television reception as an extra move, or they may be reflecting the fact that on this occasion the teacher has to move, too.

Are teachers satisfied with the programmes?

Perceptions of satisfaction and insufficiency may have tempted us to compare the relative success of ITV and BBC services. However, since the survey was focussed on the general principles of using television broadcasts no sustained attempt was made to distinguish between school television from BBC or from ITV. One of the impressions from the Stage One seminar discussions was that teachers had a clear idea that the ITV service had sharply improved in quality and relevance in recent years.

It is not however an easy hypothesis satisfactorily to test in research technique. What seems a more productive area for market research is to attempt to define what factors make up a 'suitable' programme for secondary school use, and how wide a range has to be covered.

A question which asked respondents to name programmes thought most useful to them showed a wide scatter of preferences. Although, as might be forecast, the three BBC series "Look and read", "Words and pictures" and "Scene" received most mentions, this covered only 10% to 20% of the endorsements. It is the wide range of preferences that seems to indicate that an effective school television service must contain many topics, levels and alternative styles. Reasons, both from positive and negative perspectives, given for usefulness concentrated most on stimulation and match with classroom work. Where changes were desired, the main needs were for better match to the National Curriculum and a wider variety of subjects to be covered.

Asked to state any preference for ITV or BBC as a source of school television, most respondents saw no significant difference. Where firm preferences were expressed BBC attracted adherents by perceived better quality and content, and ITV by more relevant material and better presentation.

What do teachers think television is good at?

Teachers were asked to say freely what changes they would like to see in the range, presentation, style or content of the current school television output. More than four out of ten teachers either did not feel able to reply to this probe or said they did not want any changes. This left about six in ten of the teachers responding. Their forecast of the changes needed encompassed a spectrum from overall policy to very personal needs. Their suggestions are an important clue to what teachers expect from school television.

The answers can be roughly grouped by the type of aspiration being expressed. About one in four comments focussed on the classroom situation and the general need for quality in educational terms – relevance, best use of television as a medium, clarity and presentation which engaged children's involvement.

More factual/educational	3
Better content	5
Better presentation	3
Need better presenters	3
Hold children's attention/interest better	3
Simpler/clearer programmes	2
Shorter/more concise programmes	2
Better graphics/animation	2
Sum	23%

Another area of clear concern was that school television programmes should concentrate on the crisis of the current reform in education. It is a viewpoint that sees educational television as a precisely tailored partner in teaching.

Better fit to National Curriculum		10%
Better fit to syllabus		3
Better fit to attainment levels		3
Closer liaison with teachers/schools		2
	Sum	18%

However a similar proportion of replies suggests that school television should not commit all its efforts to the core curriculum and precise match with the syllabus. It should be a resource that widens the perspective of children, is always up-to-date and "tastes fresh".

Wider variety of subjects		7
Wider variety of subjects covered		3
More up-to-date programmes		5
Not so many repeats		2
	Sum	17%

Although only a small number of responses made precise criticisms (which in any case need to be seen alongside the specific programmes with which these teachers were familiar) we can see the trace of opposing philosophies about teaching children. "Better use of language" (2%) suggests a more formally correct style should be used, something which much television for younger children would consciously avoid. The reverse of this is seen in a few comments that school television "can be patronising" (2%), or should be "more relevant to children's experience" (2%).

Seven percent of the responses recognised that school television extends beyond viewing. These teachers needed more comprehensive teachers' notes, and hoped that in the future the follow-up work suggested would be "more motivational".

The last group was a miscellaneous set of requests for "more of what I personally need". Seven percent of all responses, clearly representing a much higher proportion of infants teachers, asked for either "more for 4 – 5 year-olds or infants" in general or for "more science/technology for infants".

This can readily be seen as a reflection of the nervousness of infant teachers, teachers as they face precise new demands for teaching of subjects and skills which are either unfamiliar, or had previously been submerged in the characteristic child-centred culture of infant education. Apart from infant teachers, there were individual requests at other age-levels for more programmes on particular subjects spread over music, art, dance, science, geography and the environment.

The aspirations for the future which have been described here closely matched replies to another question which asked teachers to give the reasons why programmes that they thought useful were so. Stimulation of interest, attractive presentation, close match with the curriculum and with classroom work and age-level, relevance to young people – these were the main criteria of usefulness.

This line of thought was taken further. In the earlier seminars a list of useful types of programme was built up from the discussions. This list was then offered for comment to all individual teachers taking part in the more extended later stages of the project. How appropriate did they think television was as a teaching aid for these types of use ? Responses varied of course between primary and secondary contexts.

The types endorsed and the percentage levels of endorsement were:

Primary

	(%)
Natural history/natural world/distant places	89
Widening general knowledge	89
Presenting different cultures/religions	81
Encouraging creativity/imagination	81
Science: using equipment not available in the classroom	78
Science: presenting and explaining complex scientific processes (e.g. light, sound)	73

Secondary

	(%)
Natural history/natural world/distant places	83
Widening general knowledge	82
Presenting difficult social issues or problems (e.g. personal relationships, poverty, conflicts, drugs, abortion, etc.)	80
Current affairs	80
Presenting different cultures/religions	79
Encouraging creativity/imagination	73
Industrial and technological processes	73
Science: using equipment not available in the classroom	75
Science: presenting and explaining complex scientific processes (e.g. light, sound)	69
Media studies	64
Foreign languages	63
Presenting abstract ideas (e.g. freedom, loyalty, tolerance)	61

There were some types where both sectors of schooling might have been expected to have common opinions, but on which there was a clear difference between primary and secondary teachers' responses:

	Primary (%)	Secondary (%)
Teaching reading (primary)	66 (+29)	37
Encouraging basic skills (e.g. reading, maths)	73 (+27)	46
Drama/plays	60 (–9)	69
Music	64 (–4)	68

School television – window on a changing world

In 1973 the Independent Broadcasting Authority conducted a survey through the Opinion Research Centre of teachers' opinions about, and sources of information for, educational television. Only in a general sense can any comparison be made across 17 years.

At the beginning of the 70s use of school television in secondary schools was still greatly inhibited by inflexible timetables and the need to view "live". In primary schools it was more a question of large assemblies of children in school dining halls watching a weekly "performance".

But above all there was a professional disdain for a medium that was not print, and appeared to undermine cultural reliance on print. Media education had not yet extended beyond film studies as an analogy of literature. Yet even then public research surveys had clearly established television as the dominant medium in society for the communication of news, social information and the spread of cultural fashions.

Teachers in 1973 expected television to deliver news, coverage of great events and national sports, and a high proportion of trivial entertainment. School television was cast in the same mould: if the presentation was not sober and didactic (associated with BBC programming), then it was superficial and indulgent (associated with ITV programming). In reality teachers proved unable to confirm either image by correctly identifying programme excerpts, but the public profile of television in general was clearly interfering with the perception of the two services as an educational resource.

In 1990 school television is an unchallenged part of the context of teaching. It is expected to be there, and teachers would like to use it more than they do. This applies to both services, ITV and BBC. Teachers appear to be aware of a general consistent quality, yet able to offer detailed intelligent criticism. Facing major changes in the curriculum and management of schools, and the imminent restructuring of at least one of the two British broadcasting systems, teachers showed resilience and common sense. television is in nearly all homes and nearly all schools. It is welcomed when it does well and criticised when it falls short. As a resource it has proven success for several identified teaching uses. The main weakness, as far as teachers are concerned, lies in management within schools. Common problems have been seen, and there is evidence to show that teachers can apply a variety of solutions, if the will to manage is there.

Andreas H.M. van Zon

School Television Research in the Netherlands with the Aid of a Telecommunications System

Framework

School television, produced by the Netherlands School Television Foundation (NOT), has been broadcast in the Netherlands for over twenty eight years. The number of programmes increased from a small number of experimental broadcasts in 1963 to 330 programmes in the school year 1989/90 under review: 205 were targeted at primary education, spread over 29 series, and 172 at secondary level, spread over 26 series. A large proportion of the programmes consists of new programmes: in 1989/1990, 146 of the 205 targeted at primary level were new, the remainder being repeats from previous years.

School television programmes are produced as multi-media projects. A project usually consists of three to six television programmes of twenty minutes each, a Pupil's or Student's Book and a Teacher's Book. Some projects are produced without a Student's Book, especially projects for secondary schools.

Apart from individual projects on a specific theme, there are series of weekly programmes based on seasonal or 'Current Affairs' topics. Programme content covers a wide area, focussing on the school subjects geography, biology/physics, history, Dutch as a native language, and social sciences, or 'Orientation into the World', as it is called in the Netherlands.

A project may have very firm roots in the curriculum, it may even be a syllabus in its own right. Yet it may also be completely independent of the curriculum. In the school year 1987/1988, on average a quarter of the schools made use of every project in the programme schedule.

Research

From the very beginning school television broadcasts have been researched. In the school year 1987/1988 a totally new research programme was introduced. Teachers from a panel of one hundred selected primary schools report weekly about the use they have made of TV/Video programmes in their lessons. In addition, they have the opportunity to mention which items in the TV/Video programmes were considered to be lacking.

The new approach is based on the coordinated use of a personal computer, a modem and a telephone, and it aims to combine the research on participation in school television with an evaluation of the usefulness of the programmes and the research on which types of programmes are considered necessary in education. Development of the research strategy has been carried out by NOT, and the research itself at NOT's request by the Research Bureau Intomart.

Description of the problem

The following developments, i.e. situations in primary schools, were the predominant factors that prompted the change in the research framework:

1. The Videorecorder

The number of videorecorders in primary schools has increased tremendously over the past few years. In the school year 1987/1988 93% of the schools owned at least one recorder. Using the videorecorder in school has from NOT's point of view three important formats:

- *Delayed viewing:* school television programmes are taped off-air and used at a later date (same formula, only shifted in time);
- *Selected viewing:* specific parts of school television programmes may be selected for viewing, repeated, or the programme can be stopped intermittently at will (deviating from normal procedure);
- *Alternative viewing:* programmes from a different source can be used (rented or purchased videos, etc.).

The previous twice-yearly survey collecting information about the participation and use of projects in schools revealed increasingly larger gaps in our attempts to gain a complete picture.

2. Survey in schools about perceived needs

A programme policy that wishes to take its lead from teachers' wants and needs must have regular access to continually updated information. The method used before 1988 to survey needs was not able to yield the desired complete picture. Moreover, the surveys used to produce a slightly distorted picture, as wants and needs were collected on a number of fixed dates and were thus removed from actual day-to-day situations in the classroom.

3. *Current Affairs Programmes* with topical news items, in a magazine-like format, appear to be very popular, forming a major and growing portion of the programme schedule. These programmes are entities in themselves and are linked by a common theme. Superficial data about such programmes go into little depth; they yield little information. These types of programmes should receive individual attention from research preferably promptly after being broadcast.

The method of the survey

The collection and the processing of data is all done electronically. To that end the schools on the panel have been supplied with a personal computer and a modem. A computer disc that comes with the machines contains a list of basic questions, a number of lists of follow-up questions, plus the titles of the school television programmes starting after the school year 1986/1987.

The disc also contains the necessary software of how to answer the questions, how to store the answers and how to use the computer transferring data by telephone. Storage of the answers is done per individual teacher, she or he being personally addressed on the screen. Once the basic questionnaire answers have been attended to, other relevant questionnaires can be called up on the screen and dealt with in turn.

The data collected from all the teachers in the school on the use of television and video in the preceding week is transferred weekly to the mainframe of the research bureau. The transfer is completely automatic and takes place late on Thursday evenings, early Friday mornings, after the schools have switched their computers to the HOST-state for access by telephone.

The mainframe contacts the schools one after the other. Not only does it collect the data from the school computer, it also simultaneously supplies the school with new and updated questionnaires. If for some reason no contact is established with the school computer the mainframe does a second round the next Monday. In the spring of 1988 all procedures had been tested and the necessary changes in the software had been made.

This procedure opens up good prospects for a flexible and up-to-date way of conducting surveys. Very complicated questionnaires can be used (the computer shows the answer routes), and the consistency of the answers supplied can be checked. Moreover, there are indications that answers on sensitive issues gain in reliability.

The Electronic Schools Panel

The panel of one hundred schools was selected according to the results of a 'recruiting questionnaire' sent to a sample of 430 schools in the beginning of 1988. One hundred schools were selected according to a nationally representative model, with reference to: the size of school, religion or persuasion, regional distribution and type of community (urban or rural). From mid-September until mid-November the computers and modems were installed in the schools and information was given about the procedures using the hardware. These procedures were also described in a file-folder the schools received. All the schools also appointed a survey coordinator.

To ensure good contact with the schools, a regular bulletin is sent to the panel schools several times a year, containing information regarding directly or indirectly the progress of the survey. All teachers of the schools participate, with the exception of supply teachers and visiting teachers, etc. The number of teachers participating totals 760. For the time being, membership of the panel has been set at a maximum of three years. Of course, any school can opt out whenever it wants to.

The questionnaire

Every teacher is required to fill in the basic questionnaire on a weekly basis. The following are the key questions:

1. Have you recorded in the past week one or more school television programmes on the videorecorder?
2. Have you used television/Video in the past week?
3. Did you at any time in your lessons of the past week have any need for TV/Video and no suitable material was available?

In order to answer *the first question* a programme schedule of the past week appears on the screen. This schedule is transferred from the mainframe to the disc of the school computer in its weekly exchange of data over the telephone.

When the answer to *the second question* is negative, the teacher can choose from a number of pre-arranged reasons. When the answer is positive, it is followed by questions regarding the programmes concerned: School television – your own off-air recording – hired or borrowed programme. When it is a question of a new programme, a separate questionnaire follows to evaluate both the school television programme and the resource material. In the case of a school television repeat, only a few general questions are asked. When the programmes referred to are not school television programmes, questions are asked about the title, source, length of the programme and the school subject for which it was used.

When *the third question* is positive, more questions follow on the subject area and data pertinent to the content of the programmes.

Results

Since the end of September 1988, when the first computers with modems were installed, data has come in from an increasing number of schools. At first, communication with all schools was not always possible, primarily due to problems with telephone lines and the machinery.

Response

The initial aim was to have weekly contact with 95% of the schools and 90% of the teachers involved. Regarding contact with the schools, the result was a reasonable success: cumulatively 92%. However, the response from the teachers in 1988/1989 was 74%, still lagging behind the set target. In 1989/1990 the response was higher, amounting to 81% (about 18,800 completed basic questionnaires). There are no marked differences per class/group, as is shown by the following table:

Response per class/group (%)

Response	Class/group 1 + 2	3 + 4	5 + 6	7 + 8	rest	TOTAL
90% or higher	42	45	45	45	41	44
75% to 90%	26	22	29	26	24	25
lower than 75%	25	25	20	23	29	24
< 7 observations	7	8	6	7	6	7
TOTAL	100	100	100	100	100	100

At the end of the school year 1989/1990 two-thirds of the schools had one television set, one quarter of the schools owned two sets, and the remaining ten schools owned three or more sets.

The use of TV/Video in the course of the school year

Amount of use

When all weekly basic questionnaires are taken together, it appears that Question 2 "Have you used TV/Video in the past week?" receives a positive answer: on average every teacher uses TV/Video in the classroom once every two weeks. Of course, per teacher there is a difference in the amount of use.

Number of programmes used per month per class/group (%)

Number of progr. per month	Class/group 1 + 2	3 + 4	5 + 6	7 + 8	Other	TOTAL
more than 2.5	21	32	41	49	34	35
1 to 2.5	37	36	33	34	27	34
less than 1	42	32	26	18	39	32
TOTAL	100	100	100	100	100	100

Here a significant link can be observed: the higher the class or group, the more use is made of TV/Video. A similar link exists regarding the number of teaching years; the longer the teacher has been in education, the more use she or he makes of TV/Video in the classroom. Larger schools stand out negatively: teachers from these schools use TV/Video less than their colleagues at smaller schools. On the whole, the use of TV/Video in 1989/1990 seems to have increased slightly compared with the preceding year. In the category "more than 2.5 programmes per month", the total figure of 35% in 1989/1990 compares favourably with 28% of the previous year.

Origin of programmes used

The school television programme schedule is the origin of the majority of the programmes used in the classroom: 91%. The rest of the programmes are taped off-air from other networks, rented or borrowed.

School television programmes are divided into four different categories, five when programmes taken from other sources are included as a separate category:

1. STV new programmes / magazine format	57%
2. STV new programmes / other	13%
3. STV old programmes / repeated school year 1989/1990	6%
4. STV new programmes / previously broadcast	15%
5. Programmes from other sources	9%
Total	100%

The use of school television programmes

The magazine programmes constitute 40% of the total programme schedule, but the use made of these programmes is almost double that figure: 75%. Almost the opposite is the case in the category "other new programmes": a programme share of 31% against a user's share of 17%. For the category "old repeats" the proportion is the least favourable: 29% to only 8%.

All magazine programmes score high, both as far as "the number of participating schools" are concerned, and the average participation per programme (almost half of the schools).

On average, about half of the participants in a new series use over half of the programmes in that series. For the magazine programmes it appears that there is a group of incidental users – about one third used one to three programmes – and on the other hand a group of regular users – 50% used eleven or more programmes.

Recording a programme on video does not in itself mean that a teacher will actually use that programme. Throughout the school year each programme of each series has, on average, been used by 18% of the schools (new and repeat programmes together), while the figure for the combination "programme has been used and/or recorded on video" is 35%.

Teachers were only asked about ordering resource material for new series. On average, a teacher's book was available in schools for all new series in (more than) two out of three television lessons and in one of three television lessons there was a pupil's book for all children.

Ordering a teacher's book and resource material for the children is closely connected. In most cases when a teacher's book is ordered, one or more pupil's books are ordered as well, and when no teacher's book is ordered pupil's material is ordered only occasionally.

Evaluation of STV programmes

Motives for watching school television

In nearly all cases programmes are watched by the groups for which they have been announced. The most important motive for watching the programmes may differ per series – for "SchoolTV Weekjournaal" most often the reason "topicality" is given. Further criteria for watching STV were "variation in the lessons" and "motivation of the pupils for the subject". However, most programmes were watched because they were part and parcel of the total project.

Applicability, format of use and time used

The programmes' level of difficulty is generally judged to be "good", both for the magazines and for the remaining new programmes. When the response was critical of the levels, more often the differences in the levels between the pupils was referred to rather than to the programmes proper. In the assessment of the capacity of the programmes to maintain the interest of the pupils, however, greater differences appear. For all series broadcast in the year 1989/90 the average mark was 7.42. The averages for magazine programmes, new series and old-repeat series hardly vary.

The great majority of programmes are watched on tape: on average one programme watched directly as opposed to two on tape. When a programme is watched on tape, the programme is in 95% of the cases watched in its entirety and mostly (76%) without a break.

Conclusions and discussions

Our experience to date with this totally new research programme for school television, i.e. method (the Electronic Schools Panel), technique (computer, modem, and telephone), and content (a combination of user registration, evaluation and gauging need), leads us to believe that this approach offers excellent prospects.

It appears that on a weekly basis almost 50% of the teachers use TV/Video. The large majority of the programmes they use are NOT school television programmes; the balance appears to be for two fifths casual programmes (St. Nicholas, Christmas, etc.) or cartoons and feature films. Further prominent topics for the 'other-than-STV' videotapes as well as specific requests are mainly linked to the humanities: geography, nature programmes, history and "Orientation into the World", i.e. social sciences.

A comparison of the research results with the results of previous surveys is hardly possible. What we can see at this fairly early stage is, for instance, a considerable similarity of the data on the recording of and participation in a number of series. Also the requests for school television programmes are of the same tenor as found in previous surveys. But the system used in the previous surveys did not, for instance, demonstrate such a clear preference as there is for 'spread over the whole year' programmes. For the coming year alterations will be continued to be made in the standard questionnaires where necessary or desirable. It is intended to make further use of ad hoc questionnaires for specific needs.

Uwe Hasebrink

School Television in Northern Germany: Some Results of a Utilisation and Acceptance Study

The starting situation

School television has been provided by the public broadcasting stations in the Federal Republic of Germany since the mid-60s. In laying down the subjects and contents these stations work in cooperation with the authorities responsible for education, and they regard these programmes for the schools as a contribution towards fulfilling the task of providing education as specified by law. They largely – in some cases entirely – bore the expenses themselves. In the 80s, the public broadcasting stations came under increasing financial and political pressure from the private competition that had just appeared on the scene.

Questions were being asked more and more frequently as to the effectiveness of the broadcasts that, as a rule, obtained only low audience ratings. This also applied to the school television programmes. Some broadcasting stations reduced their school television programmes; the Norddeutsche Rundfunk (NDR) discontinued them altogether in 1989, pointing out the difficult financial situation.

The discussion on the so-called effectiveness of school television made it clear that no criteria, let alone any reliable information, were available to make any useful assessment of it. It is true that since the introduction of school television in the Federal Republic a large number of mostly qualitative studies of various aspects of this instructional medium have been produced. But in most cases they concentrated on the attempt to prove whether and/or under what conditions better learning results were achieved when television was used as a teaching aid. On the other hand, little consideration was given to questions of the status of school television for structuring the lessons. There was hardly any reliable information on the actual use of these programmes in schools.

This state of affairs was at best tolerable as long as the broadcasting stations offered school television without any proof of effectiveness. Especially in northern Germany, where the NDR discontinued the programmes, but also in all the other German 'Länder', we are today faced with the urgent question as to the actual and the potential status of television in the lessons in view of the changed situation of the media.

The findings of a study, carried out in northern Germany by the Hans Bredow Institute for Radio and Television in 1988, provide some guidance for answering this question.[1] The central aim of this study was to obtain reliable information on the status which television assumes in the lessons at schools providing a general education. It considered not only school television, but also the question of how far broadcasts from the overall television programme were employed for teaching purposes.

Method

The study was principally aimed at the teachers. The school television programme is intended primarily for them; it is them who select certain broadcasts for the lessons from the programme offered, and it is them who in the last analysis decide whether school television should be used for schoolchildren or not. For this reason all the teachers at general schools in Bremen, Hamburg, Lower Saxony and Schleswig-Holstein were taken as a basis of the totality for the postal survey.

The sampling was to be representative and large enough to allow reliable answers for all four 'Länder' and city states. Five per cent of the total was laid down as the size of the samples. The names and addresses were taken at random from the relevant files of the educational authorities. The questionnaires were first sent out in February/March 1988, and after two reminders the survey was concluded in June 1988. Up to that time 2,126 of the 3,220 teachers – i.e. 66% – who had been approached had replied; this rate of replies is extremely high for a postal survey and provides a good data basis.

The questionnaire comprised 29 questions on contents, 26 of which were standardised and three open-ended. In addition, 11 questions were asked on the respondent and the school. The questions covered the following main areas: the first group of questions was intended to furnish information on how many teachers employ broadcasts of school television and of the general programme and how frequently.

The use of television in the classroom ascertained in this way was to be associated by means of another group of questions with various basic conditions which can facilitate, impede or make impossible the use of television. To what extent the respondents' personal media behaviour and their attitudes to television influence the use of the media in school was also examined. Besides this, questions were also asked as to the contents and presentation forms of television broadcasts which, in the respondents' view, were especially suitable for use in the classroom.

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[1] Kolley, P.; Waldmann, N.; Hasebrink U.: Nutzung und Akzeptanz des Schulfernsehens in Norddeutschland. Hamburg: Hans-Bredow-Institut 1989.

Results

Overview of the use of television in the classroom

A detailed presentation of the results of this study is given in a separate publication (Kolley et al., 1989). This section first deals with the fundamental question of the extent to which teachers in northern Germany avail themselves of television in their classroom.

Just under one-third (30%) of the respondents had never used television in the classroom during their working life at school; 60% "sometimes" used television, and 10% "often". The findings for school television in particular were: over half of the respondents (57%) have not yet utilised school television during their work; or expressed conversely: 43% have used school television at least once, 38% "sometimes" and 5% "often". Even if the number of those who say they have "often" used television is small, these figures do show that the medium of television is certainly recognised and used as a teaching aid. Here it seems that the broadcasts of the general television programme play at least an equally large part as those school television programmes produced specially for schools.

In order to ascertain the importance of television as a medium of tuition in even more concrete terms the questionnaire also contained a question on the use of television in a certain limited period, namely in the first half of the 1987/88 school year. Altogether almost 30% of the respondents made use of school television programmes in this period. Here the teachers who utilised the medium in only one lesson are the exception. In most cases television was made use of in about 5 lessons. This corresponds to the fact that in 1987/88 the NDR's school television programmes were transmitted almost exclusively in the form of series, i.e. that in each case several broadcasts were devoted to one subject.

In reply to the question concerning specific broadcasts which were used in the lessons, 49% of the respondents who had worked in the first half of the 87/88 school year with television in the lesson named school television programmes and 58% broadcasts from the general programme (multiple answers were possible). This indicates that the normal television offerings play a role that is at least as important as the school television programmes produced specially for this purpose. This is all the more remarkable when it is recalled that in principle using the broadcasts of the general television programme in the classroom is not allowed for copyright reasons.

Transmissions from the programme sections "music and theatre", "screened versions of literature" and full-length films, some of which had already been shown in the cinema, were explicitly mentioned most frequently. In addition information broadcasts from the area of political reporting are very frequently included in the classroom. Magazines of a scientific and technological character also seem suitable for teachers as teaching aids. These results underline the fact that the teachers, if they use television in the classroom, do not restrict themselves to school television but also consider the whole range of general television programmes when selecting broadcasts suitable for their lessons.

The teachers who had made use of school television in the first half of 87/88 were then asked in which subjects they had done so. Geography and biology come out top among the subjects. These are followed by history, English, physics and topical work.

It is interesting that it also emerges from the findings in reply to this question that the respondents considered here use school television in at least two subjects. This would seem to indicate that those teachers who have discovered that school television is useful for their lessons employ it in almost all of the subjects they teach.

Basic conditions for the use of television

One of the organisational requirements for the use of television is first – as a necessary precondition – that the schools have suitable equipment at their disposal. Of all the pieces of equipment whose availability was asked about in the questionnaire slide and overhead projectors and cassette recorders are most frequently provided. Over 90% of the teachers asked have these pieces of equipment at their disposal; they thus appear to have become part of the schools' standard equipment. 78% can avail themselves of both a television set and a video recorder, so that they have an opportunity to show school television programmes at staggered hours. 4% of the teachers have only one television set to fall back on and can therefore only use school television at the same time as it is transmitted.

The "technical range of school television", when seen like this, amounts to 78% or – with restrictions – 82%. But this technical range varies according to the type of school. Primary and elementary schools offer the worst conditions for using school television, and grammar schools the best. At primary schools the necessary equipment is only at the disposal of about 50% of the teachers.

The provision of television sets and video recorders is, however, altogether felt to be adequate by only one out of two of the teachers. Of course, it is especially those who have neither one nor the other piece of equipment available who complain. The fact, however, that one-third of the teachers who, although they can avail themselves of a television set or a video recorder, do not consider the equipment provided to be adequate shows that there are obviously not enough pieces of equipment that work.

The respondents' replies showed that another important condition for a useful employment of school television in the classroom, namely adequate information about the programmes that are offered, is frequently not met. Almost half of those who have never made use of school television gave as the reason that they lacked the advance information for planning and structuring their lessons; no other reason was mentioned more frequently.

To use school television it is necessary not only to obtain the necessary information on the programmes that are offered but also to make certain technical and organisational preparations. Whereas school television could only be received directly when it was first introduced, which called for complicated arrangements of the classroom to coordinate it with the fixed transmission times, nowadays the school television broadcasts are, as a rule, recorded on video: 93% of the users of school television who were questioned used the broadcasts in recorded form. This finding raises the question of how far transmitting school television within the framework of the normal television programmes is still sensible or whether the dissemination of the broadcasts to those teachers interested could be organised differently or perhaps better.

37% of the teachers who do not use school television gives as the reason that the organisational and technical preparation is too troublesome. After the shortcomings in the information on the programmes this is the most important reason – clearly ahead of aspects relating to contents or didactics. This finding is all the more remarkable if it is remembered that in the early discussion on school television the argument about taking some of the load off the teachers played an important part.

Personal prerequisites

After dealing with the actual use of television in the classroom and the basic technical and organisational conditions, the following section goes into the teachers' individual prerequisites which might be relevant for deciding for or against using school television: their private media behaviour and attitudes towards television.

If we start from the fact that the teachers' personal use of the media and thus the status which they attribute to individual media in everyday life does not fail to have an effect on the use of school television, it can be assumed that teachers who attach only little importance to television in their everyday life also use this medium less frequently for purposes of instruction.

But even independently of the question as to whether television is used in the classroom, the personal media behaviour of the teachers is of importance for the pupils' approach to the media and for the development of an enlightened relationship to them. So far no representative studies of the media behaviour of teachers in particular – apart from the case studies described – are available.

For this reason we asked the teachers how long they themselves listen to the radio, watch television and read the newspaper on an average working day. According to the findings, the teachers questioned showed the characteristics usual for graduates with regard to their media use compared with the overall population: they see considerably less television, listen less to the radio and read the newspaper more than average for the population.

With regard to the expectation expressed above on the connection between personal media use and using school television it is confirmed that teachers who rarely watch television employ school television far less frequently; they do, however, use the general television programme more often, so that, contrary to our expectation, altogether they do not avail themselves of television any less freqdently than those who watch more television.

Questions were also asked which went beyond media use and extended to various dimensions of attitude towards television in general and as an instructional medium. Here is especially noticeable that 86% of the respondents think that "schoolchildren see too much television anyway'. A clear rejection of television, such as "I reject television generally", meets, however, with little approval. In the case of these questions, clear connections with their personal use of television are revealed, as was to be expected.

The connection between attitudes and the use of television in the lesson does not emerge quite so clearly, but the tendency is the same. Thus it can be seen that the way the teachers privately deal with the medium of television has consequences for their decisions on whether to make use of television in the classroom.

"Television in the lesson motivates the pupils": altogether 79% of the respondents agree with this statement; rather fewer (71%) agree if the same statement is made with particular reference to school television. These opinions are shared by the users of school television with an agreement of about 90%, whereas in the case of the non-users it is only about 65%.

It is interesting to note here the differentiated reply-behaviour of the teachers who only use the general television programmes for their lessons: 80% of them are of the opinion that television in the lesson motivates the pupils, but only 63% are of this opinion with regard to school television as well. The latter figure is the same in the case of the non-users. This supports the thesis which emerges from these results that the motivation and the objectives of the teachers who use the broadcasts of the general programme differ from those of the users of school television.

Direct statements on the school television programmes tend to be answered positively: well over half of the respondents (62%) "find school television broadcasts very good on the whole". Almost as many consider them to be "up to date", and only few (13%) "are bored by school television". As was to be expected, these assessments are closely connected with the actual use of this medium. Here the teachers who only avail themselves of the general programme stand out more clearly than in the case of the presumed motivating effect of school television: they judge school television even more critically than the non-users.

The study also examined how far it was possible to talk of the teachers being "tied" to the medium of school television. This general measure of acceptance frequently used in media research is operationalised as the degree of indispensability which the respondents subjectively attach to individual media. Analogous to this usual questioning about the general media tie, the tie to the teaching aids school television, school radio and educational films and videos was surveyed for purposes of comparison. Here only the tie to the medium of school television is of interest.

The result is – even without any standards of comparison – rather sobering at first sight. Only 22% would "very much miss" school television if it were discontinued. The tie to this medium is naturally closely connected with its use: while a good 90% of the teachers who used school television in the first half of the 87/88 school year would miss it, this is not the case with over half of the non-users. The latter also applies to those teachers who only take advantage of the general programme.

Television as a teaching aid

Television is one of the teaching aids recognised by the broad majority of the respondents: 92% said in reply to our question on this point that television should be taken advantage of in the classroom; 60% were furthermore of the opinion that it should be dealt with as a **subject** in the lesson.

Only rough ideas were obtained on the didactic objectives pursued by the teachers when they used television in the lesson. The reason mentioned by far the most frequently for employing this medium is "to illustrate the contents of the lessons". A certain part is also played by the "more varied structuring of the lesson". If in addition the answers on when television is employed during a unit of instruction are considered, two different ways of using television emerge: if television is utilised in the middle and at the end of the unit of instruction the more frequent reason given is to illustrate the contents of the lesson, while at the beginning the more varied structuring is given over-average status.

For structuring their lessons the teachers have different media at their disposal with each of which they can pursue different didactic aims. To obtain further indications of the part played by school television as a teaching aid, the respondents were asked to arrange ten teaching aids in their order of importance for structuring their own lessons.

It is quite clear that the blackboard is still the most important. Textbooks and other print media follow on in importance ahead of overhead transparencies, which in some respects can be regarded as a further technical development of the blackboard. These three teaching aids have in common that they are extremely rarely judged to be completely unimportant; they represent the basic equipment in media technology for the classroom. Two other teaching aids, the map and the model, are only suitable for certain subjects, while they have no importance whatsoever for others. Accordingly the findings show that here both high and low ratings are relatively frequent.

The third group of teaching aids from the list we provided comprises educational films and videos, slides (series), school television, general television and school radio. These media can be used more universally than the two mentioned above, but they cannot be used so regularly – because of the additional organisation and technical requirements – as, for example, the blackboard or the textbook. Within this group the greatest importance is attached to the educational film and video. It is followed by slides and then school television. According to these findings, the general television programme and school radio are the least important.

To supplement this section, the educational film, school television and school radio were compared with regard to the tie of the respondent to these media. What is clearly the closest tie is shown in the case of the educational film: 45% of all respondents would "miss it very much", while in the case of school television and school radio the figures are 11% and 8%, respectively.

It can be seen that the different teaching aids among themselves cannot be seen as competing with one another: teachers who used school television in the same period also employ school radio with above-average frequency. With regard to the tie, too, this group turns out to be generally open-minded towards the media: all three of the media we specified would be missed here most frequently. It is interesting that even in the "closest circle of users" of school television the tie to the educational film is more pronounced (52% compared with 30% in the case of school television).

It remains to be stated that in a comparison of different teaching aids the ties to school radio and school television are not very strong. These findings indicate that school television neither enjoys very great popularity nor does it meet with outright rejection. The respondents, however, are more interested in the educational film and/or video, which are provided by and can be hired from the educational media centres.

This would seem to indicate that the educational film has advantages which school television cannot offer, for example the fact that no recordings have to be made and that the films can be hired from the Film Service much longer than school television broadcasts, which after they have been transmitted are only available for use in schools for a maximum period of two years. This makes the preparation easier, especially when the teachers deal with the same subject matter several times and then know the films which they have found suitable for their purposes. In the version of the educational video, the educational film can also offer the same technical advantages as school television.

Expectations of school television programmes

With reference to contents and forms of structure suitable for use in the classroom, the users of school television gave the following answers: the length of the programmes should be about 15 minutes; only rarely were figures of under ten or over 20 minutes mentioned. Only at grammar schools were longer programmes also desired. School television is therefore allocated a supplementary function as far as the timing of the lesson is concerned. The major part of the lesson remains for the teacher to structure.

Differences between school types are also seen in the structuring elements and ways of presentation preferred. At primary and elementary school the structuring elements "plot" and "animation" are relatively popular, and in comparison to the other types a person-related presentation is more frequently desired. Grammar school teachers tend to prefer a factual manner of presentation with a large proportion of documentary material; elements of a spoken commentary are mentioned here more frequently than is the case with other sorts of schools.

Over and beyond these detailed questions addressed to the school television users, all the respondents were asked to state which contents are, in their opinion, especially suitable for imparting by television broadcasts. In this open question no difference was made between school television and the general programme. The large majority of the results reflect the main points observed with regard to the use in the case of the individual types of school: factual knowledge and traffic instruction at primary and elementary schools; science at middle schools; music, literature, drama, languages and regional studies at grammar schools, and politics and civics at comprehensive schools. The fact that the answers on contents which can be particularly well imparted by television are so diverse indicates a correspondingly broad spectrum of possible uses for this medium of instruction.

Finally, to obtain information on the possibilities of using the various programmes of the general television programme as well, a list of television broadcasts was provided accompanied by the request to mark off which of them was generally suitable for use in the lessons. The types of broadcasts contained in the list covered the complete programme of present-day television. At first sight, there is no type of broadcast which is not considered suitable by at least some of the teachers. Altogether the answers show that, on the one hand, the whole spectrum of television programmes can be considered for use in the lessons. On the other hand, the school television programmes, coordinated between the broadcasting stations and the educational authorities and produced specially for the lessons, are still regarded as the most suitable.

Conclusion

What is the picture of the status of school television in the classroom conveyed by these findings? The use of television in the lessons is the exception rather than the rule. Some teachers, who usually have a better media-related training and are more open-minded in their attitude towards television in private life as well, are motivated to supplement their lessons by a television broadcast from time to time to illustrate certain contents or quite simply to bring some variety into the lesson.

These persons accordingly try to find out about suitable programmes and are more prepared to accept the organisational and technical trouble involved. And apparently these are the people who regard television as suitable almost independently of the subject to be taught: school television users stated on average that they use television in more than two different subjects.

In evaluating the figures relating to the use of school television it should be remembered, however, that there is probably no other strand of programmes with such a favourable infrastructure of acceptance: defined target groups, differentiated programme commissions, public support, comprehensive advance information, at present double transmissions, in some cases trained presenters and users (teachers), support from other public organs (e.g. local educational media centres). If, in view of these favourable preconditions for use, higher rates of usage are not achieved, this surely has only to be put down to a limited motivation that can hardly be improved.

A systematic integration of television or school television into the structuring of the lessons in different subjects, class levels or school types does not seem to exist, according to the findings of this study. All signs point to the fact that teachers do not want to have the independence of their didactic methods restricted by a mass medium.

The teachers described above who are motivated to use television in the lesson choose the broadcasts relevant for their lessons from the existing offerings of the entire television programme. It is not decisive whether the broadcast was produced specially for schools, but, rather, whether it is suitable for their particular lesson.

It is very questionable whether, in view of these findings, it would still be worthwhile offering special broadcasts for schools within the framework of the normal television programme accessible to the general public. This all the more so, since the broadcasts are almost always used in recorded form. It seems to be more important to keep a good selection of suitable programmes available for interested teachers and, over and beyond that, to clarify the legal situation with regard to the use of broadcasts in the normal television programme.

Hanspeter Hauke

Acceptance and Utilisation of School Television in South-West Germany

Preface

I first became seriously interested in television for schools while studying for a teachers' diploma on education and the media. I joined a seminar held at the teacher training college of Freiburg by Ludwig Graf, head of Südwestfunk's department for instructional and training programmes in Baden-Baden.

Subsequently, I experimented with school television in my own English, history and political science lessons. My initial impression was soon confirmed: the programmes were well suited to classroom use at varying levels, and this was due to their design and to the fact that the support material was both didactic and methodical. However, what did surprise me was that most of my colleagues were not aware of the usefulness of educational television. Indeed, none of them had ever worked with it.

I became intrigued by the question as to why a medium which was designed and produced especially to meet the demands of today's classroom was so poorly received by the people who were meant to use it. For this reason, I decided to pursue the matter further, choosing this topic for the dissertation that would conclude my studies.

I undertook a representative survey[1], and some of the results are summarised in the following pages. Particular attention is paid to the reasons behind why school television is or is not employed, as well as to the extent grammar schools in the Freiburg area accept and use it.

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[1] Hauke, Hanspeter: Die Akzeptanz von Schulfernsehen – Ergebnisse einer Untersuchung in Baden-Württemberg. (The Acceptance of School Television – Results of a Survey in Baden-Württemberg); Freiburg 1988. (The complete survey can be obtained from: Hanspeter Hauke, Bertolt-Brecht-Weg 12, 7830 Emmendingen)

Survey method: standardised questionnaire by post

Before the questionnaire was designed, teachers at every kind of school were asked spontaneous questions about their general opinions and attitudes concerning educational television. The results, which were often opinions about television as a whole, were then formulated as theories and arranged in sensible and assessment-oriented variables for the questionnaire.

Official regulations for my diploma examination only allowed the postal form of questioning. Unfortunately, analyses of the heated discussions on the Federal German census law of 1987 suggested that questionnaires would be received in a critical, if not negative, manner.

For this reason, extensive pre-tests were carried out, and great care was taken formulating the variables and wording the covering letter. The pre-tests clearly showed that questions should be as concise and short as possible, that active and passive tenses should alternate and that subjunctive and "can" clauses should be avoided.[2]

A fundamental criterion with regard to the possible ways of answering the questions was that a clear distinction was necessary between positive and negative answers and attitudes. Furthermore, importance was attached to drawing up a scale of assessment values for judging indifferent and "I do not know" answers.[3]

An overview of some results

In the Freiburg area, every grammar school is, technically speaking, in a position to use educational television. They all have at least the basics as regards television sets and video recorders, and the equipment is usually kept in special media rooms. Furthermore, 39.9% of these schools have a video unit on every floor, and sometimes in every classroom.

The availability of a video unit is the prerequisite for the effective use of school broadcasts, since timetables cannot offer the flexibility needed to use programmes at the time they are transmitted – a practice which, anyway, would not be very fruitful in the eyes of media-oriented educationalists.

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[2] For details of methodological considerations, especially in connection with the form of the covering letter and making contact, see Hanspeter Hauke, op.cit., p. 5 and following.

[3] Cf. Bourrée, V.: Methodische Probleme von Befragung zum Schulfernsehen (Methodical Considerations on Questions about School Television). In Tulodziecki, G. (Ed.): Schulfernsehen in der Bundesrepublik Deutschland (School Television in the Federal Republic of Germany). Cologne 1977; p. 33 and following pages.

Even though the necessary equipment is available, 36.2% of the people questioned said that the use of educational television in lessons meant an additional workload owing to "internal/organisational considerations". Co-ordination with colleagues when reserving the media room is one example of extra work incurred, as is the flexibility teachers must show if sudden changes are necessary.

If, at this point, school television proves unsuccessful, this does not tell us anything about the true effectiveness of the medium. Instead, it points to a lack of co-operative spirit among staff, and their inability to work in a team.

However, two problem areas became clearly evident. Both were within the sphere of responsibility of staff members in charge of school television:

- The uncertainty that teachers experience with regard to the methodological and didactic preparation for lessons incorporating school television;
- the feeling teachers have that it takes too much time to record programmes: 46.3% thought that "obtaining programmes" involves extra work.

The problem which materialised in the first area was only to be expected: any assistance integrating television into individual lesson plans was sporadic and depended on the personal commitment of certain teachers.

The second problem was somewhat surprising due to the fact that programmes could not be easier to maintain. What other medium delivers information to teachers by air, franco domicile – or free school? Nothing could appear simpler! All the teacher has to do is programme the recorder, which subsequently records the film automatically. Then, in his own time, he simply files the programme, which is now ready for use.

In practice, however, it is this very programming and recording that causes problems. For example, television companies do not keep users adequately informed about programme changes (e.g. changes caused by delays in production). In addition, last-minute changes are made owing to daily events, such as sport and political debates in the federal or state parliaments. In many cases, school programmes are postponed and not broadcast until the following school year.

Not all video recorders are equipped with a system that allows them to record programmes independently of real-time (e.g. VPS). As a result, amendments to broadcasting schedules can lead to recordings that only include half a programme, or perhaps none of it. Such recordings are generally useless for classroom teaching. Furthermore, colleagues sometimes come along later and change settings on recorders, with the result that a different programme from the one required is taped.

The number of times mistakes are made when setting video recorders is much higher than one might think, and teachers have little chance of quickly obtaining programmes they have failed to record. Regional media centres do offer a sort of emergency service, but this has proved neither attractive nor adequate.

When considering the complaint that too few teachers accept and use school programmes, one should first investigate whether users have been sufficiently informed about the medium and about all its possible applications.

A lot of teachers were found to be unaware of the fact that the school television programmes they record can be kept and used in the classroom until one year after the final episode of a particular series. Moreover, broadcasts are repeated regularly, providing they are not outdated, and in each case, the date for erasure is set afresh. Consequently, one can think in terms of long-term storage.

Of the teachers questioned, 19.4% said that the monthly magazine "Schulfernsehen Südwest 3" first aroused their interest in school television. The magazine is published by Südwestfunk (SWF) in Baden-Baden, and is offered to every school free of charge. It contains additional, factual information on the contents of programmes, methodological and didactic stimulation for classroom work, syllabus extracts, as well as work sheets for pupils.

However, a setback here is that 45.4% of teachers are unaware of the journal's existence and that 55.5% do not use it. In addition, 47.8% do not know where they can find it in their school.

Teacher training courses – whether basic, advanced or postgraduate – have not yet included lectures on the effectiveness of media in connection with teaching based on pre-determined contents. Furthermore, discussions about methodology and didactics pay little attention as to how teachers should form questions in a media-based lesson. Any discussions about the use of media in teaching are mainly limited to the handing down of specialist teaching techniques within a closed group, without any allowance for new ideas.

Unfortunately, television is generally regarded as being purely a source of entertainment. This is especially true in grammar schools, where education is distinctly humanistic and scientific:

- of the grammar school teachers questioned, 62.9% thought that television primarily offered entertainment;
- 82.4% believed that television made people passive;
- 54.8% were worried that if school television were used in lessons, pupils would become even more dependent on it.

Grammar school teachers made no distinction between the general programmes available and those broadcast for school, even though they are specially tailored to educational needs.

In summary, it is important to stress that school television is not sufficiently accepted among teachers. The reasons for this are found in organisational, information-based, and media-oriented pedagogical considerations.

Acceptance and use of school broadcasts

Quantity and quality determine not only whether an offer will be accepted but also how often it will then be used.

In other words, the higher the number of school programmes broadcast in a particular subject area, the greater the probability that the offer will at some time be taken up *(acceptance)*. Similarly, the higher the degree of success experienced in television-based lessons, the more often such programmes will be introduced *(frequency of use)*.

What I needed to know was whether teachers found the current range of school programmes convincing. I was also interested in how often teachers availed themselves of such programmes once they had approved of the range and had used a programme in the classroom.

On the basis of the considerations mentioned above, the quantity of relevant school programmes broadcast during the survey was noted, as was the acceptance level and degree of use – values which were arrived at by means of a procedure which cannot be explained here.[4]

The *acceptance value* reveals how effective the offer of school programmes is for relevant subject teachers. In other words, it showed how many subject teachers liked the offer and used television programmes in the classroom.

The *utility value* shows how often, on average, these teachers introduced educational programmes into lessons during the survey period.

In certain subjects, it became evident that there was sometimes a great disparity between acceptance and utility values. By way of example, account should be taken of a few particularly extreme results that were discovered in certain subject areas (see chart on p. 501).

In *mathematics*, the acceptance value was remarkably low, while the utility value was relatively high. This means that only a few maths teachers took advantage of the educational programmes on offer, but that those who did, introduced programmes comparatively often.

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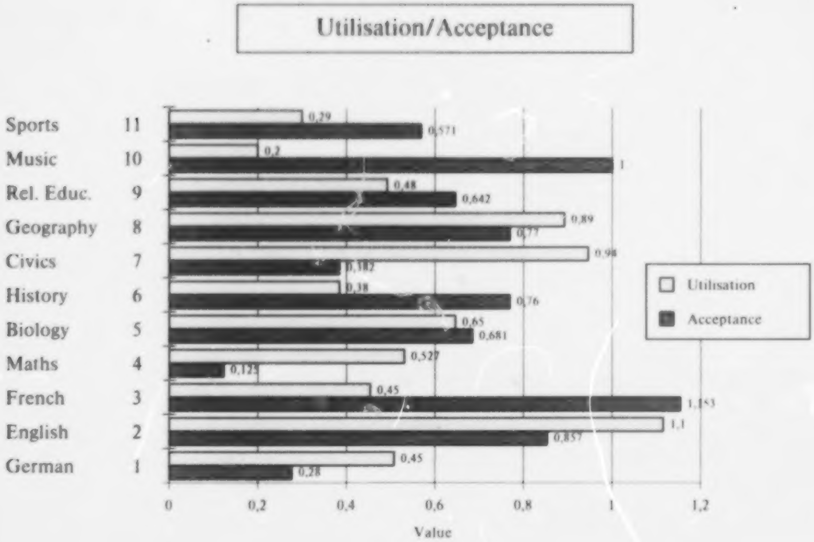
[4] See: Hauke, op.cit., p. 102 and following pages.



The low acceptance value among maths teachers can, at least in part, be attributed to the early 70s, when they were first confronted with television in schools – then a completely new medium. The aim of such programmes at that time was to educate both the pupil and the teacher in the field of set theory. In accordance with this aim, programmes were based on direct teaching concepts. As a result, the teacher was forced into the role of the pupil. Indeed, television even took away the teacher's control of lesson planning and teaching. It put an end to individual teaching.

The subsequent rejection of "Big Brother Television" dominating the classroom led to the development of a subject-based "tradition of refusal". From the very start of their careers, following generations of maths teachers were devoted to the classic media for mathematics – blackboard and chalk.

Later, school broadcasts in the field of mathematics developed into a modern medium. Programmes were produced in consultation with subject teachers, and abstract mathematical theories were conveyed by means of concrete examples based on the target group's own experience. A wealth of television techniques were employed to encourage pupils to think for themselves.

The high utility value recorded among maths teachers shows that the small number of teachers who actually managed to break away from old traditions – and had the courage to experiment – were so impressed by the quality of programmes that they frequently used them.

As regards *music*, the picture is quite different. Here, the acceptance value is very high, while the utility value is very low. The reason for this could be that, although music teachers have a very positive attitude towards the new medium, they are not in a position to use it frequently, since they usually have a particular class for only two hours a week.

It is the programmes made for *French* classes which reveal by far the highest acceptance values. This primarily reflects how good the supply of French programmes is, that French teachers know about them and that they accept their usefulness.

Another reason is probably the fact that "video recording" is a medium which has advantages over traditional 16mm film, especially in the field of modern language teaching. Firstly, there are the technical advantages of video (low running noise, the still frame function, unlimited repetition of individual scenes, class work with or without sound and with or without pictures, etc.). Secondly, there are advantages for methodology (observation tasks, descriptions of people, summarising of events, specifying contents, and guessing how the story will continue, etc.).

Furthermore, this medium permits the presentation of authentic spoken material for class work. Such possibilities are welcomed by favourably-minded French teachers and lead to the introduction of school language programmes, alongside all the other media available.

English is the subject which has the highest utility value among grammar school teachers, together with a relatively high acceptance value. In other words, the best overall result. This is particularly remarkable if one remembers that Südwest 3 did not include English broadcasts in its school programme until around the mid-80s.

Comparisons with other school broadcasts do not explain this result, neither as regards the production environment (co-operation between television station and Ministry of Education and the Arts, broadcasts for particular syllabus units, etc.), nor as regards the style of presentation (learning through a variety of methods, such as role play, real-life scenes, documentation, etc.).

However, the Freiburg school authorities have, for many years, organised events which perhaps help explain the success of television for English teaching. The events serve teacher training purposes and are organised in a systematic and most committed manner. They are very popular among teachers.

Hermann J. Weiand, professor at the teacher training college of Freiburg, offers one-day or several-day training seminars that focus on particular subjects and cover all types of schools. Seminars provide an overview of what television programmes are available to English teachers. Possible sources of information are identified and the suppliers are named. Above all, practical sample lessons are analysed, based on selected school broadcasts.[5]

In addition, video extracts of exemplary lessons have been produced in co-operation with the audio-visual centre of Freiburg's teacher training college. The extracts provide concrete ideas on how to use television programmes. Moreover, extensive and detailed literature has been devised and published to accompany educational broadcasts.

With regard to English, survey results clearly showed the relationship between the acceptance of school television and the provision of concrete training in methodology and didactics as a preparation for the introduction of this medium into subject-oriented lessons.

Conclusion

The survey results showed that school television offers informed teachers a medium that is particularly suited to the development of practical and effective lessons. This is because the specifications for programme design are conceptionally and structurally sound.

However, teachers can only employ school broadcasts correctly if they are equipped with the necessary information, as well as with the media-oriented teaching skills required; prerequisites which

- enable a subtle assessment of television as a general medium;
- lead to an awareness of television's unique potential with regard to motivation, learning and information supply in the classroom;
- reveal how to use the wide variety of methods and media-based educational techniques, integrated into the design of school programmes, in a specific and individual way.

Unfortunately, only 21% of grammar school teachers in the Freiburg area belong to this category of teachers. Consequently, nearly 80% do not have enough information on school television and/or lack sufficient skills in connection with media-based education.

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[5] Cf. Prof Weiand's contribution to this volume, pp. 227 – 234.

This discovery should not lead to a false conclusion. It would be wrong to assume that "school television (is) an outdated form of broadcasting and cannot be maintained long-term".[6]

What is important today is to both improve and use the existing broadcasting infrastructure, which has so far produced relatively weak acceptance values. The infrastructure includes journals for school broadcasts, public centres (such as administrative bodies or school inspectorates) and educational film hire services. Activities should focus on two goals: Firstly, filling the information gap teachers have with school television. Secondly, replenishing the store of media-oriented teaching skills.

Solving the lack of information

The hypothetical solutions that follow answer the question as to how to reduce the information deficiency (detected in the survey) of a surprisingly large group of teachers.

1. All teacher training courses in Baden-Württemberg, Rheinland-Palatinate and the Saarland should supply information about school television.

   Moreover, with the help of the relevant Ministries of Education, the institutions for central and regional teacher training should be persuaded to inform lecturers and course directors about the legal aspects of using educational television in schools, as well as about television journals and the suppliers of educational programmes.

2. In future, educational film hire centres should regularly draw people's attention to school broadcasts within their territories. They should also inform their clients about the wide range of possibilities the medium offers.

   This could happen through

   - improving the appearance of the centre; for example, with an educational television poster sent to all centres free of charge every two months, together with the specialist journal;
   - the creation of an "educational broadcasting corner" which would not only have educational posters and journals but would also display the newest productions;
   - the inclusion of up-to-date information on educational television in a circular sent to schools;

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[6] Cf.: Dichanz, Horst; Hasebrink, Uwe: "Nutzen Sie Schulfernsehen? Fakten und Trends in Norddeutschland" (Do you use educational television? Facts and Trends in Northern Germany). In: Praxis Schulfernsehen, 161 (1989). S. 85 – 88.

- courses for teachers about educational television, held at the film hiring centres.

Furthermore, educational film cassettes produced by television stations should be given a rental number and a standard cover, on the inside of which there should be some brief information about the film and the educational concept behind it. The films should then be integrated into the official rental activities of the educational film centres.

3. School principals and directors should ensure that the school television journal – the teacher's prime source of information – should actually be placed at the teachers' disposal and not disappear in a type of "Bermuda triangle" somewhere between the secretariat, the head's office and the staff-room.

   The latest copy of the journal should be put somewhere where all staff can find it and read it. Moreover, it is equally important that the journal is filed in a way that it can easily be retrieved. This is because valuable support information cannot be reprinted each time a film is repeated on television.

4. All schools in Baden-Württemberg have advisers for audio-visual media, who should consider themselves responsible for supplying staff with information about educational television.

   Their function should include supplying general information about the complete offer of educational television, about new programmes, as well as providing suggestions as to teaching methods. Above all, audio-visual advisers should develop and operate internal video-tape libraries, containing educational films. The video-film hiring centres should be responsible for training media advisers, and keeping them informed.

5. The journal for school broadcasts should be designed to meet the needs of users.

   This means that texts produced in connection with broadcasts should be typeset in a way that enables photocopies to be easily made, and that the overall graphic design should be clear and easy to use (e.g. listing broadcasts according to school subjects; naming series clearly and systematically; providing a wide enough left margin, so that holes do not have to be punched through the text when filing the information).

Combating the lack of media-oriented teaching skills

The steps mentioned above must be accompanied by the systematic integration of media-oriented, pedagogical forms of questioning, particularly in basic and advanced teacher training courses. Consequently, examination boards should include not only special media-oriented seminars on didactics, but also media-oriented questioning in the didactic part of teacher training courses.

The same applies to the second phase of training, i.e. to the grammar school part, and to postgraduate teacher training. There are many ways of conveying the virtues of educational television:

- special seminars on educational television for central and regional training, focusing on lesson concepts;
- advanced courses that cover the subject of media-oriented teaching;
- holding Education Days at schools that are within the range of a television transmitter.

The only way to combat what many people feel is an inadequate degree of acceptance for educational television among teachers is to correctly use the structures that exist for this purpose in a systematic and long-term manner. Furthermore, new ways for expanding the scope of educational television must be tested and developed.

Michael Bauchop, Wolfgang Bauer, Hubertus Eckert

The Use of School Television and the Attitudes of Teachers towards Mass Media

Preliminary Results of a Representative Survey in Bavaria

In the fourth quarter of 1990, the Bavarian Staatsinstitut für Schulpädagogik und Bildungsforschung (State Institute for School Pedagogy and Educational Research) in Munich carried out a survey for the 1989/90 school year, in which a selected number of male and female teachers at schools and training colleges in Bavaria were questioned. The survey was performed at the request of the Bavarian Ministry of Education, Science and the Arts.

A wealth of material was collected for assessment. Some of the data that were relevant to school television were selected for this essay, as well as some facts concerning the attitudes of teachers towards radio, television and video as forms of mass media. Lack of space led to the inclusion of only a few tables and graphs in this article. The authors are prepared to provide additional material in response to possible enquiries.[1]

Concept and Methods

There were several reasons for performing a representative survey rather than a complete one. A comprehensive survey would have involved unjustifiably severe organisational, technical and financial efforts. As a result, it was decided to perform a sample survey that was divided into categories. Owing to organisational problems, it was not possible to carry out a truly random sample survey, in which each individual teacher had the same chance of being selected; at worst, this approach might have made it necessary to write to almost every school on account of just one of their teachers, who, unfortunately, would have had to have been named.

For this reason, it was decided that schools should serve as sample units and the random nature of the survey was confined to the choice of schools. When a school

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[1] Address: Staatsinstitut für Schulpädagogik und Bildungsforschung (ISB); Arabellastr. 1, D-8000 München 81, F.R.G.

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was selected, all its teachers were questioned. The six types of school mentioned below were assumed to be homogeneous with regard to teaching staff.

In order to adequately cover the small but important group of "Berufliche Schulen", "Wirtschaftsschulen", "Fachoberschulen", and "Berufsoberschulen"[2], it was necessary to perform a sample survey that was disproportionately layered.

It was decided to question about 2,800 teachers from elementary schools, 1,800 from "Realschulen"[3] and "Wirtschaftsschulen", 2,200 from grammar schools ('Gymnasien'), 2,500 from vocational schools, and 700 from "Fachoberschulen" and "Berufsoberschulen".[2]

In order to guarantee that the random selection covered all categories, we obtained the addresses of every school in the database of the Bavarian Ministry of Education and the Arts, the addresses being grouped according to number of teachers and type of school.

Questionnaires were sent to each school, the number of questionnaires depending on the number of teachers. On return of the questionnaires, it was discovered that young female teachers were slightly under-represented and that older male teachers were over-represented. Consequently, data were weighted according to sex.

The following school types were identified for the purpose of the survey: primary schools, "Realschulen", and grammar schools – for schools providing all-round education; and vocational schools, "Fachoberschulen" and "Berufsoberschulen" for schools of a vocational nature.[4]

Since there are no common criteria for subjects at the two groups of school mentioned above, a compromise had to be found. Consequently, questions were asked about subjects common to both branches (e.g. "German") and also about subject groups within schools offering all-round education (e.g. "modern languages"). In addition, questions were asked about subjects taught in the two school branches which, although different, were grouped together ("mathematics and practical arithmetic"). Finally, questions were asked about subjects which, for the purposes of the survey, were named after careers. This was especially the case with regard to vocational schools.

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[2] Berufliche Schulen: Vocational schools;
Wirtschaftsschulen: Commercial schools preparing for training in business-related occupations;
Fachoberschulen: Schools leading from intermediate level school certificate to ,,Fachhochschule'', i.e. a combination of academic and practice-oriented education;
Berufsoberschulen: Schools leading skilled workers to ,,Fachhochschulen'' or university.

[3] Realschulen: Intermediate branch of secondary level I, between ,,Hauptschule'' (branch of secondary level I, oriented to the world of work) und ,,Gymnasium'' (grammar school, preparing for academic studies).

[4] As for the English terms corresponding to these German school types, see footnotes 2 and 3.

When the phrase "school television" is employed, it always refers to the school programmes broadcast by the Bayerischer Rundfunk (BR) in the school year of 1989/90. The survey concerned itself with the use of school television in the classroom, and no distinction was made between programmes that were directly broadcast to the classroom and those that were recorded and used later.

Selected data

When feasible and appropriate, the data collected were transformed into percentage values, so that they could be read more easily. Among other things, the data provide answers to the following questions:

Aspects of using school television

1. *What are the subjects/educational areas in which school television is most frequently used by male and female teachers in the individual types of school?*

The data show that teachers most frequently use school television in history, geography, biology and German, percentage values lying between 12.4% and 13.7% (s. Graph 1). A second group of teachers could also be identified, where percentage values lay between 0.3 and 6.2, the top-scoring subjects being social sciences/political education (6.2%), road safety training (5.8%) and occupational and business training (4.7%).

Turning to the subject areas concerned with "agricultural technology" (taught in vocational schools), the survey shows an almost nonexistent use of school television. However, this cannot really be seen in a negative light, since school television almost exclusively produces programmes on all-round subjects or themes.

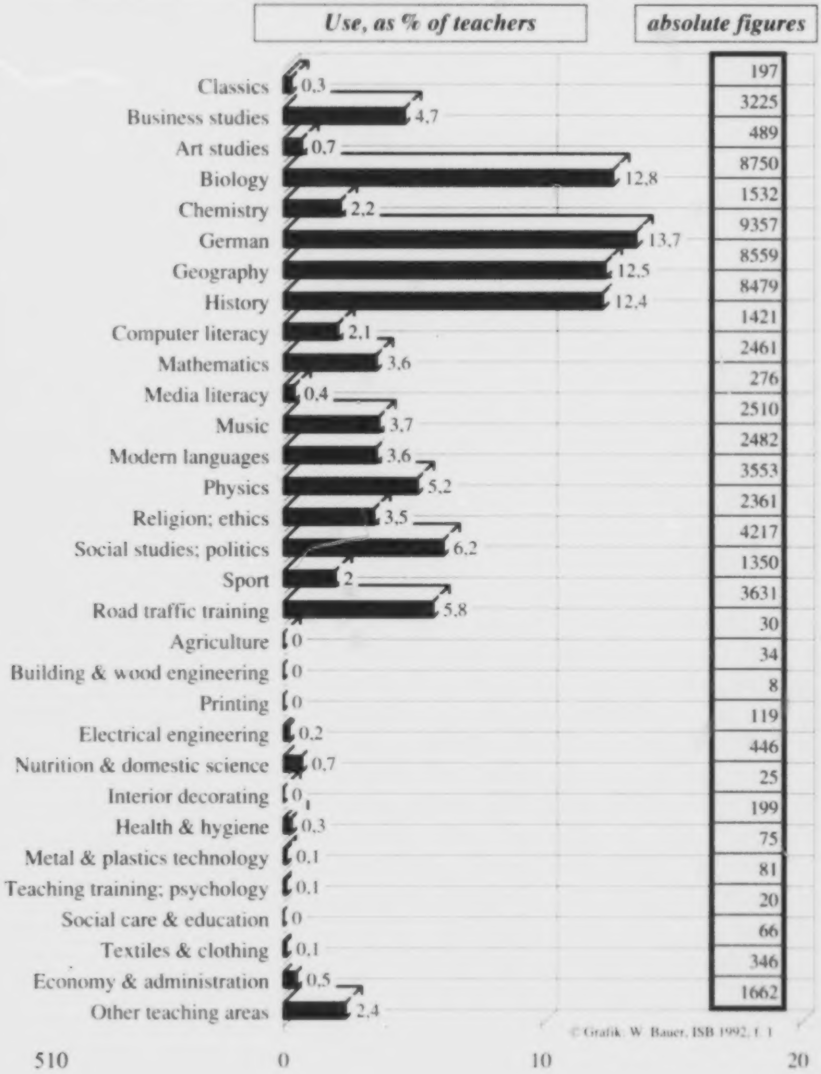
Other data gathered on the use of school television, which are not presented separately here, reveal several significant differences between male and female teachers in the "elementary, secondary and grammar schools" group.

Female teachers at elementary schools clearly use television much more frequently than men in biology (17.2%), German (16.4%) and road safety training (8.9%). In contrast, their male counterparts use television more often in occupational and business training, history (14.5%) and geography (14.1%).

As regards "Realschulen", women are ahead in occupational and business training and geography, as well as in music and modern languages. However, men have a considerable edge as regards physics, chemistry and social sciences.

Graph 1

Use of School Television Programmes Broadcast by The "Bayerischer Rundfunk" in the School Year 1989/90



© Grafik: W. Bauer, ISB 1992, f. 1

This scenario is significantly changed when we turn to grammar schools. Although there is a male "block" of 15.5% who use school television in German, geography and history, women are well ahead (by 4%) in German. In history and geography, however, they are either badly or drastically behind. Of course, this poor performance is more than compensated for in "modern languages", where, as was the case in secondary schools, they have secured the very top percentage value of 31.2%. The men simply cannot keep up with this. Furthermore, "nutrition and home economics" remain the exclusive domain of women in all of the three types of school mentioned above.

The top percentages attained in vocational schools are found in German and social/political science (each with 25%), as well as in nutrition and home economics (10.7%). As regards German, women have a lead of 3.4%, while in social sciences men are ahead by 3%. The female sex clearly has the upper hand with regard to nutrition and home economics. They also score similarly high marks in modern languages, while they fall behind in information technology, and business and administration.

In "Berufsoberschulen" and "Fachoberschulen" , where syllabuses are similar to those of grammar schools, the highest percentage values among male teachers are seen in German (15.7%), social/political sciences (each 15.7%), history (14.8%), physics and practical physics (13.9%) and modern languages (13%). Although men and women are roughly level in German and history, women fall well behind in physics and practical physics (3% for women compared to 15.7% for men). However, they are back on top again with social/political science (18.2% compared to 15.7%).

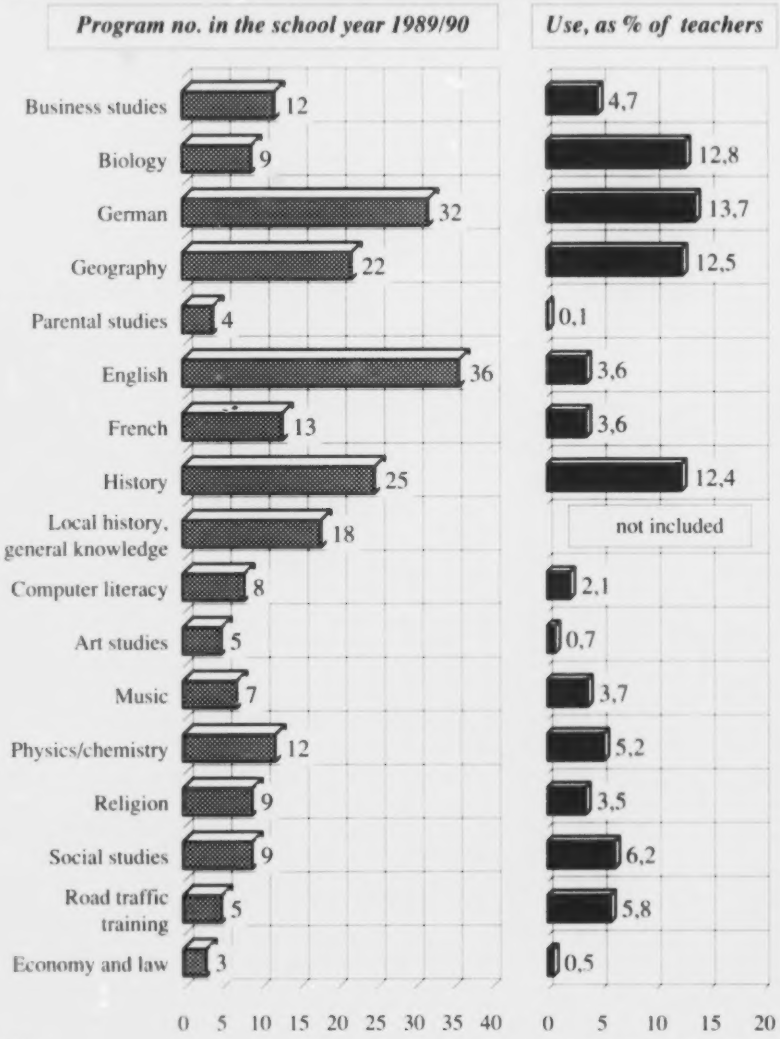
Finally, mention must be made of chemistry and practical chemistry – 6.1% for women and 1.9% for men, and of economics and administration – 9.1% for women and 1.9% for men. Although these areas do not score as high percentages as the other subjects previously mentioned, both of them reveal that women use television more frequently here.

Regarded quantitatively, a comparison between the programmes offered by the Bayerischer Rundfunk in the school year of 1989/90 with the actual degree of use by teachers reveals the different picture.

Graph 2 presents a comparison between the number of programmes broadcast in 1989/90 and the percentage of teachers from all types of school who employed television at all. It reveals that the relatively large amount of programmes for German, geography and history is matched by a similarly high rate of usage: between 12% and almost 14% of teachers (at whatever school) used school television in the subjects just mentioned. Biology teachers produce a similar picture, although the number of programmes broadcast is less than, and not in proportion with, the

Graph 2

School Programmes Broadcast by The "Bayerischer Rundfunk" and the Degree to Which They Were Used



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three high-scoring subjects. It is particularly interesting to see that only 3.6% of teachers actually use the large number of programmes offered for English and French, although this result becomes much more favourable if considered in connection with the individual types of school.

On the whole, however, it is clear that the great majority of teachers (about four-fifths) say that they do not use the television programmes on offer – an impressive 299 programmes in 1989/90 – in their lessons.

For what teaching purpose is school television mostly used?

The data gathered showed how many teachers agreed that school television is suited to the **presentation of factual knowledge**. At all-round schools, about three-quarters of all male and female teachers were of this opinion, while, at vocational schools, "Berufsoberschulen" and "Fachoberschulen" (s. footnotes 2,3) two-thirds agreed. The highest values were reached by primary school teachers (with 79.1%). Second are grammar school teachers with 71.8% and, then, teachers at "Realschulen" with 68.1%.

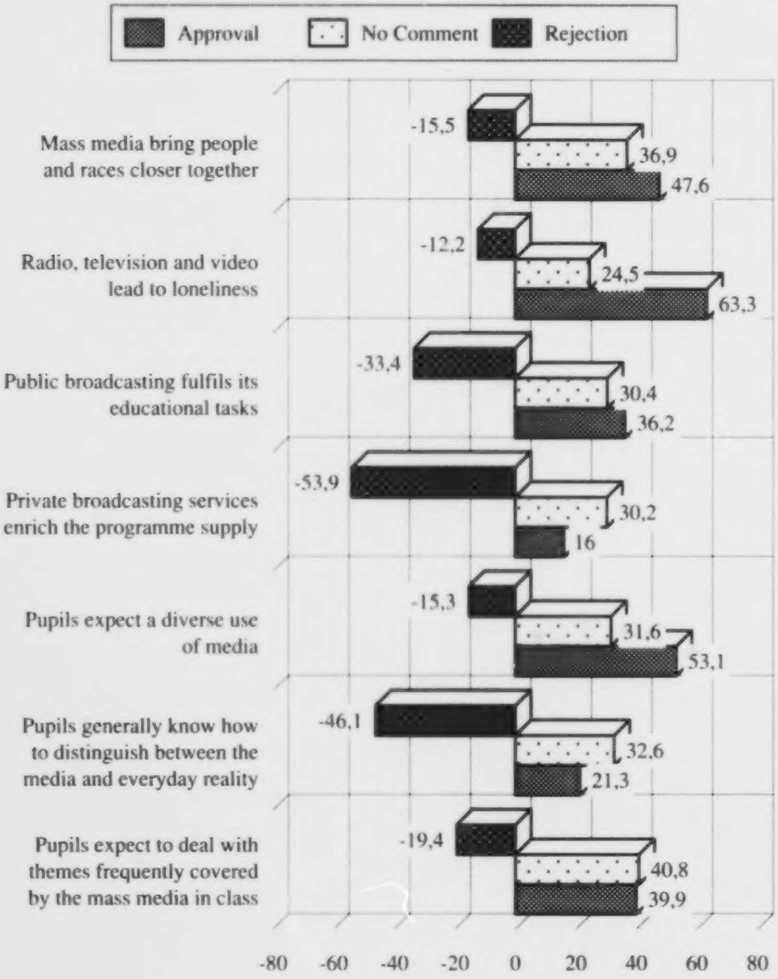
The statement that school **television makes teaching come alive** and things easier to grasp recorded a similarly high score, although the relationship between the number of programmes and the rate of usage was not as balanced as it was for the previous question. The differences within the groups are, of course, very remarkable. About half of the teachers at primary schools, "Realschulen" and grammar schools agree with the statement. At vocational schools, agreement is not quite so high, but is still around the 50%-mark. With regard to technical and vocational schools, however, opinions vary significantly among those teachers who were born before 1936 (about 72%) and those born after 1955, i.e. the youngest (only 38%).

Following on from the two statements mentioned above, teachers responded really positively to comments like **'repetition, consolidation of knowledge'** and **'preparation for the acceptance of new ideas; motivation'**. Here, values were recorded of between 20% and 40%. In contrast, the statement that school television is of benefit with regard to 'practice, and the preservation of knowledge' received a modest response, while values recorded for 'an instrument for measuring success' are hardly worth considering: they were between 1 and 6.5%.

A look at the age groupings reveals that it is the female teachers in primary schools who tend to make more use of school television (52%). However, in all other types of school, it is the male teachers who are well ahead and, at times, they even score twice as high as their female colleagues.

Graph 3

Attitude of Teachers towards Mass Media: Radio, Television and Video (data in percent)



© Grafik: W. Bauer, ISB 1992, f. 2

Aspects of the attitude towards mass media

Concerning the attitude of teachers towards the mass media radio, television and video, the survey provided some very interesting revelations (s. Graph 3).

High percentage values were recorded for three of the statements, which can be considered as the most important in this list of questions:

- About two-thirds of all teachers believe that mass media lead to loneliness.
- Only one-third believe that public broadcasting organisations fulfil the educational tasks entrusted to them.
- Over half disagree with the statement that private broadcasters enrich the supply of programmes in the mass media.
- About the same number agree that pupils expect media, in all its diverse forms, to be used in school.

With regard to the first observation, there is a certain contradiction to another finding: about half of all the teachers involved said that mass media serve to bring people and races closer together.

Finally, there were two interesting results in connection with how teachers perceive the behaviour of pupils: about half think that pupils expect a diversified use of media in class. However, only about 20% think that pupils are capable of distinguishing between the reality presented by the media and the reality of everyday life. At this juncture, one should perhaps ask why teachers' opinions of their pupils do not correspond to the findings of media researchers.

Our data makes it quite clear that teachers who make frequent use of school television differ from those who do not, on three points:

- Teachers who use school television frequently tend to believe that media bring people and races closer together.
- They also display a more favourable view of the public broadcasting organisations.
- They believe that pupils expect media to be used extensively – indeed, as much as 60% or over.

At the same time, a closer look shows that it is the female teachers who tend to use school television most frequently.

Final remarks

Only a small part of the data from the representative survey of Bavarian teachers has been selected and interpreted in a preliminary manner in this work. The present assessment should not be considered as a final version, since certain connections with the remaining data have not yet been made.

The picture shown here may change slightly with regard to certain, individual points. However, the main features will remain unchanged. Indeed, even at this stage, the view that school television is still not used as much as it should be may be considered to have been empirically substantiated.

Chava E. Tidhar

Research on Educational Broadcasts to Children in Israel – An Evaluation Model*

Background

Educational Television in Israel preceded Public Television. Introduced in 1966 as an experimental project in 33 schools, it started broadcasting strictly instructional programmes in three subjects – English, Mathematics and Biology. Gradually it expanded into a national service aiming at various target viewers in kindergartens, schools and at home, broadcasting a variety of enrichment, educational and instructional programmes.

Until 1990, Israel Educational Television (IETV) was the sole broadcaster in the country from 8.00 a.m. until 5.30 p.m., at which time the Isreal Broadcasting Authority (IBA) took over. With the recent introduction of a second commercial channel as well as pay cable TV in several regions, the situation has changed, and a new era of a competitive market has begun.

The concept of evaluation as an in-house service was adopted by IETV right from the start, and an evaluation unit began operating simultaneous to the production of the first telecasts. Initially the unit focused on obtaining fast feedback on students' reactions to programmes and the ways in which programmes were utilized in the classroom. This was followed by teachers' attitudes and evaluations concerning then extent to which educational television services achieved their intended aims.

On the whole, our work was inspired by approaches developed in different fields: television studies (Himmelweit and Schramm), media studies (Katz, Salomon and Olson), and educational evaluation (Tyler, Cronbach, Stufflebeam and Lewy). Over the years, a comprehensive model was developed which integrates evaluation procedures in all stages of programme development and implementation. This model is based on a multi-stage, multi-dimensional process.

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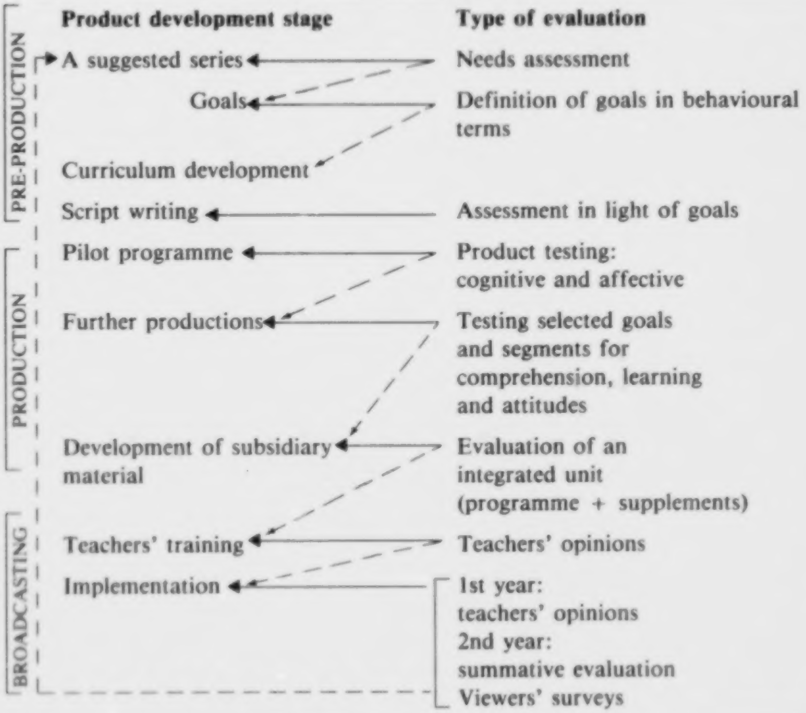
* References in this article are integrated into the bibliography appended to this volume.

The IETV model of the evaluation process

The integration of evaluation as an ongoing process in different stages of production and broadcasting is aimed at ensuring the suitability of IETV programmes to the needs, abilities, learning styles and viewing patterns of respective target viewers.


Product development stage
Type of evaluation
PRE-PRODUCTION
A suggested series
Needs assessment
Goals
Definition of goals in behavioural terms
Curriculum development
Script writing
Assessment in light of goals
PRODUCTION
Pilot programme
Product testing: cognitive and affective
Further productions
Testing selected goals and segments for comprehension, learning and attitudes
Development of subsidiary material
Evaluation of an integrated unit (programme + supplements)
BROADCASTING
Teachers' training
Teachers' opinions
Implementation
1st year: teachers' opinions
2nd year: summative evaluation
Viewers' surveys

The evaluation process varies according to the specific requirements of given programme. Sometimes, the emphasis is on preproduction activities (i.e., needs assessment, definition of goals and testing of experimental segments). At other times, the evaluative process begins at the production stage and focuses on the testing of experimental pilot programmes or segments.

In some instructional series, the emphasis is on evaluation geared to assisting the development of supplementary materials and teachers' preparation. Selected instructional series are tested for their general effectiveness in terms of learning goals, attitudes and appeal. Enrichment programmes are usually evaluated for popularity and attitudes. Sometimes specific aspects of programmes warrant special studies.

Unlike many evaluation models which are linear in nature, ours is recursive: certain stages of evaluation can reveal new needs and generate new goals, new approaches or even new series.

Evaluation methods employed at IETV

The evaluation process comprises activities of different scopes and with varying orientation. Therefore, a multiple method approach, involving a variety of both quantitative and qualitative approaches has been adopted.

During the formative stages of product development, small samples of target viewers are tested, interviewed or observed for spontaneous reactions. Carefully planned controlled experiments are sometimes conducted, as are informal group discussions.

During broadcasting and implementation quasi-controlled experiments are conducted on large samples; public opinion surveys designed to elicit teachers', parents' or viewers' opinions are carried out, as well as large-scale viewing surveys. Information is obtained from all available sources: students, teachers, parents and experts.

The evaluation framework at IETV

The general question guiding evaluation at IETV is: Which kind of programmes elicits which kind of responses among which viewers and under which implementation circumstances?

Underlying this question is an interaction between five domains of content:

1. The type of TV material
2. Viewers' characteristics
3. Viewing contexts
4. The media environment
5. Potential types of programme effects

Each category contains a number of aspects, which provide a basis for a definitional system that describes the specific research variables interacting in each evaluation project.

1. **Type of TV material**
   - TV attributes
   - genre
   - broadcasting orientation
   - didactic strategies
   - content organization
2. **Type of viewer**
   - age
   - sex
   - socio-economic background
   - prior knowledge
   - prior attitudes
   - viewing habits
   - skills
3. **Viewing context**
   - place of viewing
   - viewing situation
   - presence of others
   - type of mediator
4. **The media environment**
   - media combination
   - type of control
5. **Type of effect**
   - cognitive
   - affective
   - behavioural

How are these categories linked to the process scheme? The first category in relation to the second and fifth is usually researched during the production stage when pilot programmes or segments are selected for empirical formative evaluation. Investigations which focus on the third and fourth categories (in relation to the first, second and fifth) are more common during the broadcasting stage. In the following sections, theory and examples associated with each of the above categories will be briefly examined. Subsequently, the definitional system derived from the general framework will be presented in a model mapping sentence based on facet design (Guttman, 1957, 1964, 1965, 1969; Levy, 1985).

The type of television material

a. Television attributes

Huston and Wright (1983) stressed the informative functions of formal features in television presentations and the way in which salient auditory and visual stimuli serve as markers which direct viewers' attention, highlight informative content and affect viewers' decisions concerning the level of information processing which takes place.

Salomon (1976) distinguished between a "Television Lesson" and a "Televised Lecture" claiming that only the former is expected to result in a significant contribution to learning. He emphasized the crucial function of symbolic codes which are employed to convey a given content in shaping and activating specific mental skills needed to extract information from a given presentation in an effective way (Salomon, 1979).

Lesser (1974) discussed the potential effects of modelling via TV presentations. Bates (1981) distinguished between the distributional characteristics, the control characteristics and the symbolic characteristics of the medium and their implication for the teaching and learning process.

On the general level of summative evaluation, the influence of educational television as a powerful distribution technology cannot be ignored. In Israel, this attribute was manifested in the use of TV for introducing new curricula as well as for disseminating new teaching models.

In dealing with formative evaluation, however, it is the symbolic codes, expressed in particular auditory and visual presentation techniques that merit attention. Given specific instructional goals for specific target viewers in a specific viewing context, typical questions which emerge are:

- Do viewers relate a close-up, followed by long shots, to its general context?
- Would an abrupt cut from one shot to another hinder interpretation?
- Does a given superimposition or montage succeed in clarifying intended relationships?
- Does a split-screen presentation elicit expected comparisons?
- Does a specific auditory cue disturb or direct viewers' attention?
- Is the compatibility between the auditory and the visual presentation effective?
- Does the language level or pace of narration in a programme suit viewers' competence?

Providing answers to such questions by means of formative evaluation helps to identify improvements which may increase programme comprehensibility and effectiveness. The following examples, drawn from our experience, illustrate this point.

b. Visual attributes

Visual attributes can be dealt with on very specific levels such as the contribution of a specific technique (e.g. a close-up shot) to learning or on a more general level such as showing learners material which is otherwise unavailable to them (e.g. life under water).

On the specific level, the contribution of superimposed images to comprehension and retention was investigated in different subject matters:

A biology programme for 6th graders included a film segment on animal movement, showing the relationship between movement and skeleton structure. Formative evaluation revealed that the connection was not clearly perceived. Added superimposed X-ray films of the skeletons on the animals improved comprehension (Tidhar and Peri, 1977)

A programme on archaeology was tested by means of a controlled experiment among 8th grade students. The programme was produced in four versions: Two included visual reminders consisting of schematic drawings depicting formal characteristics, superimposed on pictures of remnants and reliefs, and two without visual reminders. In each pair, one version was accompanied by full verbal information and the other by leading questions only. The experiment showed that visual reminders contributed to the identification and retention of visual details, irrespective of the verbal mode employed. Visual reminders were especially helpful to pupils whose verbal ability and/or visual memory were below average (Tidhar, 1973).

The contribution of gradual camera movements rather than abrupt cuts to comprehension and identification was demonstrated in formative evaluation studies concerning programmes for pre-school children: In one study, a film segment in the series "Rechov Sumsum" – The Israeli version of the American programme "Sesame Street" – depicted life in sand-dunes. A sequence showing a child following the tracks of a bird in the sand was cut into a sequence of close-up shots of a small beatle running. Four and five-year-olds did not comprehend the abrupt cut and attributed the bird tracks to the beatle (Tidhar and Peri, 1984).

The following examples demonstrate more general contributions of visualizations which are otherwise unavailable to learners:

An educational television series on metal technology for 9th graders in vocational schools systematically presented the use of tools in real-life industrial set-ups. A comparison of students who viewed the series with students who studied the same curriculum without TV revealed significant differences in favour of the former, who demonstrated a higher ability to connect theoretical principles with practical processes (Tidhar, 1973).

A series teaching English as a second language to 9th grade pupils, presented the use of grammatical structures in everyday real-life situations conveyed by actors whose mother tongue was English. Comparative studies showed that broadcast viewing significantly improved pupils' ability to understand dramas in English-speaking films and radio plays (Tidhar, 1974).

c. Auditory attributes:

The contribution of auditory cues to comprehension of television segments dealing with reading readiness was evaluated in several formative studies among 5 to 6-year-olds. In one study, two animation segments presenting manipulations by which a given letter is transformed into another letter were tested. Although viewers liked both segments, one segment achieved its learning goal better than the other. An analysis of the differences between the segments revealed two auditory factors that enhanced learning: – a clear emphasis of the letter sound in the audio track and an explicit verbal description of mistakes made in the visual transformation process combined with verbal reinforcements of the right letter shape (Tidhar and Shchori, 1986).

Specific characteristics of the narration proved to affect comprehension of studio and film segments by pre-schoolers: a fast-pace narration which included unfamiliar words in early dubbed segments of "Sesame Street" hindered the understanding of their central message (Peri, Volbrum, Minkovitch, 1981). The use of indirect speech created difficulty among 4 to 5-year-olds in understanding film segments of "Rechov Sumsum" (Tidhar and Shchori, 1984).

The genre

Educational television programmes are designed in specific genres (talk shows, segmented programmes, dramas, documentaries, etc.). Familiarity of target viewers with a given genre is an important factor that affects their expectations, directs their attention, influences their understanding of content presented, as well as the mental skills that are activated to extract information from the presentation.

One of the evaluation tasks during the formative stages of an educational television programme is to ensure the suitability of a chosen genre to target viewers as well as their ability to contend with formats and conventions typical to this genre. The following examples illustrate this point:

Children's ability to contend with deceitful behaviour in a situation comedy was tested among 314 9-to-12-year-olds. A typical programme from an IETV sit-com series presenting deceitful behaviours had no immediate effect on the perception of children vis-à-vis norms of behaviours in society. The degree of understanding events and characters' motives increased with age, as did the level of children's critical approach and moral judgment of deceitful behaviour in the broadcast. The appeal of the TV characters was independent of their moral/immoral behaviour, but was based on their entertaining appearance and quality of acting (Tidhar and Peri, 1990).

An innovative school programme for the initial stages of learning English as a second language, based its vocabulary instruction on song clips, combined with graphic images produced by a "friendly" computer. An adult host with two children provides a simple "story framework" to each programme. Formative evaluation of the pilot programme among 4th graders revealed a high level of enjoyment and no difficulties in contending with this unfamiliar genre. The friendly computer gained high popularity and the graphic images preceding realistic pictures and song clips achieved their learning goals (Rivner and Shchori, 1990).

The segmented format developed by the Children's Television Workshop for "Sesame Street" in the U.S.A. inspired some magazine-like formats in several Israeli TV series. However, these series as well as those for pre-school children, continued to focus on a central theme. Dramatic situations were presented in continuity, within the same segment, without other segments interrupting the plot. An important finding which emerged during the evaluation of "Rechov Sumsum" was that a short plot with a theme presented in discontinuity through different studio segments placed apart from each other in the programme, was attractive and easily followed by children (Peri and Lahav, 1982; Peri, Bahack and Shchori, 1983). As a result, most "Rechov Sumsum" programmes were built around studio segments which formed a mini-series within each programme.

The broadcasting orientation

Educational television broadcasting usually comprises both strictly instructional and educational enrichment programmes. Needless to say, the type of programme affects programme design, expected viewers' attitudes, expected outcomes as well as the availability of supplement materials and professional mediation. Occasionally, a change in programme orientation – from instructional utilization to enrichment or vice versa – is assisted by formative evaluation.

In one study, extracts from a popular enrichment youth magazine were tested among adolescents from low socio-economic backgrounds as triggers for classroom discussions. The extracts succeeded in eliciting discussions among viewers, who found the problems presented related to their own lives. The experimental programme gained a high level of appeal and cast members elicited positive reactions. Consequently, a series of programmes was formed, and adapted for school broadcasting (Tidhar, Pessach and Shchori, 1986).

Two other studies evaluated an attempt to adapt English-speaking films for classroom instruction in secondary school levels. Each one of six programmes was tested among students in intermediate schools for comprehension of the plot, the central message and key words, as well as for appeal and interest. Only four of the six programmes were recommended for instruction. One was rejected because its genre (informative documentary) failed to attract viewers' interest and one because of its level of language (Peri and Prizach, 1984; Tidhar and Pessach, 1986).

Didactic strategies

Educational television programme designers attribute importance to didactic strategies as means for stressing and clarifying educational aims as well as for consolidating information. Advanced organizers, summaries, activation drills, explicit specification of rules, forms of repetitions are all subject to evaluation.

The following examples from our studies illustrate contributions gained through formative evaluation in shaping didactic strategies employed in educational television programmes. In the second phase of "Rechov Sumsum", an attempt was made to include a systematic elaboration of the graphic, representational and communicational aspects of the written language acquisition process from a psychogenetic perspective.

A small-scale qualitative study was carried out among four and five-year-olds, based on in-depth interviews, drawing and writing assignments. A detailed analysis of children's reactions to different kinds of stimuli resulted in three animation series, which aimed at enhancing children's understanding of basic rules of the written system.

These animation segments provided the viewer with an opportunity to observe on-line completion and transformation of written texts, as well as sign to sound matching in dynamic visual situations. Seven segments of these series were evaluated by means of a controlled experiment. Each segment was tested among 72 four, five and six-year-olds, from 6 kindergartens. The results of the experiment confirmed the effectiveness of visualization strategies based on the psychogenetic approach, which provide viewers with imagery models that link visuals to print and sound, as well as models of relevant mental operations (Tidhar and Shchori, 1985a).

An earlier study evaluated the placement of a summary in a maths programme designed to teach high school students the topic of reflection. The programme was prepared in two versions: in one, a sequence depicting different types of reflections in real life situations was placed in the very beginning as a stimulating teaser; in the other, the same sequence was placed at the end as a summary.

Both were tested among parallel groups of 10th graders. Results showed that students with above average achievement levels in geometry and spatial ability comprehended the sequence at the beginning of the programme and achieved significantly better learning scores when viewing the first version. On the other hand, the second version proved to be significantly superior for weaker students (Tidhar, 1973).

Content organization

To some extent the genre chosen for an educational television programme has some bearing on content organization (i.e., a magazine format calls for organization in small content units whereas dramas and documentaries are associated with higher levels of continuity).

However, it is the degree of complexity in relation to viewers' abilities, learning styles and previous knowledge which can affect learning and comprehension beyond the influence of the chosen genre. The following example illustrates this point:

Formative evaluation of studio segments in "Rechov Sumsum" included testing of children's comprehension of complex versus simple plots among 4 to 5-year-olds. The complex plot included a subplot and required some inferences. The simple plot presented a simple story line without a subplot. It contained an explicit narration and visualization without any missing links. The segments were viewed by 87 children, first within a mini-series integrated in a regular "Rechov Sumsum" programme and a second time in isolation. The study revealed that most children comprehended the simple plot well but had difficulties with the more complex one (Tidhar and Shchori, 1985).

Viewers' characteristics

Viewers' characteristics can be defined in socio-demographic terms such as age, gender, socio-economic background, etc., in terms of learning abilities, learning styles and skills, or in terms of attitudes, predispositions, viewing habits, tastes and preferences.

The relevance of viewers' characteristics to differential media effects was discussed by Salomon (1979), and has been repeatedly demonstrated in the evaluation of educational television programmes in Israel. In light of the theory of active television viewing (i.e. Anderson, 1983; Salomon, 1983), which sees television viewing as an active cognitive transaction between the viewer and the screen, viewers' characteristics such as skills and attitudes influence their response to television programmes and their ability to extract information and learn from these programmes.

Consequently, viewers' characteristics are a major consideration in programme design and influence decisions about format, structure, pace, the selection of specific presentation techniques, choice of content and didactic strategies as well as implementation methods and broadcasting policies.

The influence of students' characteristics on programme design was demonstrated in the alternative TV programmes for slow learners incorporated as a by-product in the production of the Israeli series "Here We Are," in teaching English as a second language to 6th graders. The original aim was to create a number of complementary programmes which, in addition to the original broadcasts, could help the less able learners absorb the content of the latter.

However, tests conducted during the formative stages showed that viewing of complementary programmes did not significantly improve the slow learners' absorption of content. Consequently, the approach to the project was revised and it was decided to produce a special series of parallel programmes which would serve as an alternative for slow learners.

The alternative series was designed to deal with a limited attention span, a low level of recall and difficulties in reading, as well as difficulties in generalization and application of rules. Hence, the parallel programs were shorter, more concise, with smaller teaching units that focused on a single aspect of language structure, limited new vocabulary, explicit presentations of language rules, and a variety of examples concerning application.

A quasi-controlled experiment was carried out comparing the original series, a complete alternative course of 26 alternative programmes, and an abbreviated course of 18 alternative programmes. Altogether, 555 slow learners were randomly assigned to 3 parallel groups whose teachers' characteristics were similar in terms of training, experience, and mother tongue. Students were tested three times during the school year. The results showed that the second course was significantly the most effective one for slow learners and broadcasting was implemented accordingly (Tidhar, 1976).

The viewing context

The set-up in which an educational television programme is viewed – in school, in a study group or at home – can affect viewers' attention and their level of processing. Co-viewers can play an active role in interpreting the TV presentation for each other (Alexander, 1984), whereas mediation – be it professional or informal – significantly contributes to the instructional effects of programmes (Primeaux and Corder Boltz, 1978; Reizer et al., 1984).

A survey which was carried out in 1989 among 537 parents of two to eight-year-old children revealed that children's viewing in the home environment usually takes place in the presence of others: they invite and are invited by friends to watch television, younger children watch in the company of parents, brothers and sisters. Most parents are usually at home when their young children watch television. Over a third reported watching with their children, and one parent in four regularly provides his/her child with programme related explanations (Levinsohn and Tidhar, 1989).

Similarly, a qualitative ethnographic study conducted among 16 middle-class families revealed that "Rechov Sumsum" was viewed mostly in the presence of co-viewers with at least one parent and that parents used a variety of strategies to clarify content, activate their child, and expand information presented in the programme, relating it to the child's own life experience (Lemish and Tidhar, 1986).

The differential effect of teachers' mediation was demonstrated in a limited experiment concerning an early TV series for teaching English as a second language to 9th grade students. Two schools took part in the experiment – one had an English teacher whose mother tongue was American English and the other had an English teacher whose mother tongue was Hebrew. In each school, students from two classes taught by the same teacher – one with TV and one without TV, were individually evaluated for oral competence.

The results showed that students who studied with the teacher whose mother tongue was Hebrew, significantly benefited from the TV programmes in diction and pronunciation whereas those who studied with the American teacher significantly benefited from the same TV series, in sentence structure (Tidhar, 1974).

The influence of viewing conditions was detected in the two years' evaluation of a series on basic reading skills. During the first year, the series was broadcast in schools only. Evaluation of effects by means of a quasi-controlled experiment showed significant higher gains among pupils who studied with the series, in reading competence skills. During the second year, the series was broadcast both in the morning and in the afternoon and according to survey results, 90% of 5 to 7-year-olds watched the programmes in their homes. This time, significant learning effects in favour of those who studied with the series at school, were only found among low SES students.

Apparently, in this group, those who studied with the series in school achieved higher reading competence scores than those who did not. It seems that in this group, where parental mediation at home is less effective, and the "hidden curriculum" effect is smaller – the change in media environment did not overshadow the contribution of the series in formal learning situations (Tidhar, Peri and Wohl, 1988).

The media environment

Media combinations

An educational television programme is rarely broadcast as an isolated episode. Different kinds of support materials are usually distributed to accompany the broadcasts, be it print (teachers' guides or students' workbooks), audio cassettes, teletext pages, or computer software. The support material could be crucial for learning effects. Some guidelines concerning content areas that need to be elaborated in the supplementary materials can be formulated during earlier formative evaluation stages. However, questions concerning the amount of material, its comprehensibility, the specification of instructions, and motivational aspects in the accompanying materials are dealt with in subsequent stages of evaluation.

Such was a study that was carried out on two units of the accompanying materials of a new Maths series for 4th graders. The evaluation revealed that students booklets were too loaded, and some instructions were not clear. As a result the material was revised (Minkovitch, 1982).

An interesting media combination is that of TV and teletext pages. In developing teletext pages for special education an attempt was made to integrate teletext content with material previously broadcast on TV, in a series on Basic Thinking skills. Concepts dealt with in the broadcasts were further elaborated and demonstrated in simple daily applications on teletext pages. Evaluation indicated that students who worked with these pages gained in learning (Peri and Sofer, 1985).

Another study was designed to assess the impact of instruction via computers, video, both or neither on learning Geometry. A 2 x 2 factorial design was employed. Participants were 268 fifth graders who studied the same new contents for the same duration and with the same geometry booklet. Results showed that more media did not necessarily imply better learning. In fact, the combination of video + booklet produced the highest achievement scores (Snir, Mevarech and Moskovitz Hadar, 1989).

Type of control

Video equipment poses a challenge to broadcast television since it increases the control which learners and teachers can exert over their viewing. Using the VCR facilitates rescheduling, repeat viewing, holding a single frame to grasp detailed information, stopping for clarification and discussion, etc. New implications for programme design emerge (Crooks and Kirkwood, 1988) as well as new ways of utilization (Wohl and Tidhar, 1987).

A comprehensive study of utilizing IETV programmes in open versus closed broadcasting systems has been launched in 1991 to assess teachers' attitudes and considerations for choice between broadcast and recorded programmes and the advantages and disadvantages which they perceive in each (Tidhar, Peri and Rivner, 1991).

Effects

An educational television programme is a complex stimulus which entails a variety of potential effects – cognitive, affective, attitudinal and behavioral. Different approaches to the evaluation of educational television programmes emphasize different types of programme effects. Educational models stress cognitive learning outcomes and the eliciting of desired processes among teachers, learners and the learning environment. Communication models emphasize attitudinal and behavioral effects, whereas empirical evaluation carried out in film and advertising is mainly concerned with appeal. As demonstrated by the various examples in this chapter, evaluation projects at IETV address effects concerning appeal, viewers' reactions to formats and characters as well as effects concerning comprehension of specific messages, and the learning of specific content and skills.

The conceptual evaluation model

So far our research work has been described in relationship to major variables in each of the five categories (s. p. 520). However, even when the focus of a given evaluation project highlights one domain, its variables interact with variables in the other domains. In fact, each project should be defined as a "profile" **across** the different categories since any type of TV material is evaluated in specific viewing contexts, in a defined media environment, as shown to specific viewers, and the evaluation's purpose is to assess specific types of effects. The interactions between the variables can be described by a definition system as shown on the following pages. It is derived from our general framework and presents itself in terms of a model mapping sentence based on facet design (Tidhar, 1990), as follows:

Facet A refers to the type of effect; facets B – H to the type of TV material; facets I – J to the media environment and facets K – N to the viewing context.

The general framework expressed by the mapping sentence provides a comprehensive model for educational television evaluation, Within this model, research questions and hypotheses are formulated. Our experience at IETV has shown that such a definition system is a very helpful tool applicable to a large variety of evaluation activities in all stages of production and broadcasting. Needless to say, the model is subject to ongoing further development and elaboration.

A Mapping Sentence for the Evaluation of ETV programmes

The extent of the

A
1. cognitive
2. affective

benefit gained on the part of viewer (X) by TV material

with visual attributes

B
1. camera techniques
2. montage
3. superimposition
4. special effects
5. animation
6. live demonstrations beyond viewer's reach
7. cominations of 1 – 6

and auditory attributes

C
1. verbal complexity
2. verbal explicitness
3. music
4. sound effect cues
5. verbal-visual compatibility
6. combination of

in a grenre

D
1. chalk und talk
2. talk show
3. magazine
4. drama
5. sit. com.
6. documentary
7. segmented prog.

represented by

E
1. single segment
2. single program
3. series

unit, designed for

F
1. instructional
2. enrichment

purpose, involving

G
1. simple
2. complex

content, organization, employing didacting strategies of

H
1. repetitions
2. summaries
3. specification of rules
4. open questions
5. activations
6. drills
7. real life applications
8. combinations of the above

and transmitted by media combination

I
1. TV only
2. TV + audio cassettes
3. TV + teletext
4. TV + computer
5. TV + print
6. combinations of

in an

J
1. open
2. close
3. both

broadcast

$$\text{viewed in a} \begin{bmatrix} \textbf{K} \\ \text{1. voluntary} \\ \text{2. captive} \end{bmatrix} \text{set up at} \begin{bmatrix} \textbf{L} \\ \text{1. home} \\ \text{2. school} \\ \text{3. home \& school} \\ \text{4. other} \end{bmatrix} \text{with the presence of}$$

$$\text{reference group} \begin{bmatrix} \textbf{M} \\ \text{1. self} \\ \text{2. primary} \\ \text{3. secondary} \end{bmatrix} \text{and with} \begin{bmatrix} \textbf{N} \\ \text{1. no} \\ \text{2. formal} \\ \text{3. unformal} \end{bmatrix} \text{mediation} \rightarrow \begin{bmatrix} \text{High} \\ . \\ . \\ . \\ \text{Low} \end{bmatrix}$$

benefit gained on correctness and positiveness of Facet A and the viewer (X) has specific socio-demographic characteristics and relevant predispositions.

Evelyne Dupin-Chizelle

"Le Chemin des Ecoliers" – A Study of Utilisation

Introduction

In 1985, new elementary teaching programmes were set up by the Ministry of National Education. Support for this action was provided by a coproduction between CNDP and TF1 of television programmes intended to be received in class.

For the record, it must be recalled that the "traditional" channel for school television programmes was TF1 in those days. The channel provided technical advice and was responsible for the cost of transmission, the CNDP being responsible for the conception and the production of the programmes.

Initially, these programmes were intended only for children in elementary and intermediate classes. As from January 1987 they were extended to include nursery schools.

This large-scale operation, begun after a long interruption in school television, was based on the renewal of elementary school equipment with colour television sets, in connection with a plan titled Computing For Everyone. Nowadays there is less fear of the television broadcast, which was terra incognita then; there is less reserve about having entertainment or recreation during school hours; there is, however, the wish to find the appropriate information, wherever it may exist, and the need to put it in a form adapted to the curiosity of the young.

The CNDP had reports available on the audiences for and reception of school television programmes during the 70s, which made it possible ten years later for comparisons to be made and to provide a better basis to measure the impact of this operation.

The series "Le Chemin des Ecoliers"

In October 1985, the CNDP transmitted twice a week a series of television programmes under the title "Le Chemin des Ecoliers" (The Schoolchildren's Way). These programmes were intended to be used in class by teachers with the pupils of their elementary classes (CE) and intermediate classes (CM). Altogether 48 programmes were transmitted all through the school year: 6 programmes per subject and per level.

This regular programme for schools, which involved searching and questioning processes with regard to the subjects reading, science and technology, history and civic education, was supported by teachers' notes printed in the mini-newspaper "La Petite Lucarne" (The Little Skylight), attached to the magazine "Texts and Documents for the Class", published by the CNDP. Each transmission really is a crossroads of learning where the children can question, receive responses, and communicate with other children. Each film is a trigger for thorough research in the class guided by the teacher.

For the elementary course level, history programmes evoked the daily life of a given epoch, while science and technology programmes stimulated observation of the environment.

A first approach to reading is suggested to the pupils by the short story of a book being read to them; each programme of initiation into reading adapts an extract from a book. Civic education programmes are concerned with the rules of democratic life at the communal level, presenting a picture of how the different powers held by the state function.

Programmes intended for intermediate course pupils allow them to explore decisive stages in the history of France, and to initiate themselves into the work of the historian. They also allow an approach to the technical inventions which mark the history of knowledge in the field of biology and physics.

From January 1986, the CNDP transmitted every Monday on TF1 from 9.1O to 9.30 a.m. television programmes conceived for children at nursery schools. These programmes are split into 5 short sequences, each presenting an approach to language acquisition.

For the whole series of "Le Chemin des Ecoliers" the programme forms are varied, e.g. reports, magazines, fiction. The tone of the programmes is very alert and the play element prevalent.

The study

In January 1986, the CNDP's Director of Educational Methods decided to initiate a two-year study to

- determine the potential audience at both elementary and nursery level;
- measure the assistance given by the programmes to teachers;
- measure the audience of the programmes and its development during the school years 1985 – 1986 and 1986 – 1987;

- to observe the development of consumption and the way the programmes are viewed during this period.

A twofold strategy was employed:

- consultation of a national sample;
- a regular viewing survey, with regard to quality, at the regional level.

In 1986, 4,160 primary schools were surveyed twice; the first time at the end of January, the second in mid-May. 3,499 schools returned so-called "T-forms" in January, 2,631 in May. Thus we were able to obtain information on regular viewing at the beginning of the year and the equipment of the classes for 84% of the population surveyed, and on regular viewing at the end of the year and the conditions of reception and use for 63% of the schools contacted.

20% of schools returned the two "T-forms" completely filled in. As this selection was not atypical, it made up the sample we consulted again in 1987 to establish comparisons and to observe developments from one year to the other.

This continuity in information allowed us to characterise the type of school (number of pupils – equipment – organisation – consumption) in order to estimate how regularly the programmes were viewed during the two school years, according to the proposed subjects and level concerned.

In 1987, 1,015 public nursery schools were also extracted from the 16,644 nursery schools in the home country. 672 returned the corresponding "T-forms", informing us of the consumption habits of 66% of the nursery schools.

At the regional level, 9 regional educational authorities were chosen according to the criteria of the size and equipment of the schools, the rural/urban dimension and the cultural and leisure practices of the regions.

536 questionnaires intended for teaching users were sent out by the regional structures of the CNDP (CRDP). Moreover, about fifty teaching users agreed to reply within the framework of a guided discussion on the assistance provided by televised programmes for the teaching of a subject.

This combination of elements allowed us to establish to what extent the programmes are integrated into the activities of the class.

The target groups of "Le Chemin des Ecoliers"

Of the primary schools which replied to us, 70% are in rural areas; it is therefore to be expected that there should be a large number of rural schools among those which use television. On the other hand, as this type of school is attended by relatively few children, there are more city-dwelling children in the television audiences.

Of the nursery schools that replied, 71 per cent are in urban areas, mainly in medium-sized towns. To these must be added the 17 per cent of primary schools that can use the transmissions destined for the children in nursery schools. These schools are in small centres of population and they have an infant section within a class catering for several levels.

The audience of educational television is therefore very heterogeneous. It is composed, on the one hand, by a group of isolated rural children and, on the other, by children living in the peripheries of the large urban conurbations. They have in common a fairly poor cultural environment but have a very different experience of the world.

If we take into account the total number of programmes viewed regularly during the year, we can characterise the schools as follows:

- A large number of viewers are situated in the towns, average-sized cities and large conglomerations (more than a third of all programmes in the year = 22 and more programmes), representing a third of schools using television;
- A medium-sized group is to be found generally in hamlets and villages (between a quarter and a third of all programmes = 16 to 21 programmes), representing a fifth of the television-viewing schools;
- A small group is mainly from large cities (less than a quarter of all programmes = 15 and less), representing more than half of schools using television.

Encouraging the use of broadcasts

With "Le Chemin des Ecoliers", CNDP offers an educational service to all schools. Other activities offered at the local level might be in competition, or, on the other hand, might help with the utilisation of television broadcasts, since regional cultural equipment might constitute a propitious environment for this sort of activity.

To look at this environment we rely on the 'Communal Inventory'. For all the communities this exists in order to:

- make an inventory of the principal commercial equipment and services rendered to private individuals in each sector of social life;
- analyse the attraction of the equipment and services.

From among the sectors of social life which have shown us cultural practices and leisures, we have chosen to index:

- the existence, or not, of a cultural centre, a museum, a theatre, a permanent or part-time cinema, a library or a mobile library;
- the presence, or otherwise, of a sporting association, a choir or a theatrical group.

Impact of the programmes

A third of schools providing primary education regularly view the programmes televised by CNDP. The national audience has become stable at around 36% of primary schools and 4% of nursery schools.

In each television-viewing primary school, there are on average two teachers who watch the CNDP programmes with their pupils. In general, one teacher is at the CE and one at the CM level.

On average, schools using television consume between 2/5 and 1/3 of the programmes on offer. As a general rule, it seems that

- 6 primary schools out of 10 view on Tuesday and Friday, for the same subject,
- 4 primary schools out of 10 view regularly on Tuesday and Thursday, whatever the subject matter.

Six programmes out of 10 offered in history and civic education are viewed by 2/5 of primary schools. Of the schools in question 1/3 and 1/4 respectively follow in the same proportions the programmes devoted to science and technology, and to stimulating reading.

Half of the programmes intended for children between 3 and 6 are viewed on average by 2 teachers in nursery schools with their pupils.

It may be said that in the course of a school year, a quarter of classes at the primary level (nursery and primary school) view at least one programme a month.

Conditions favourable for using "Le Chemin des Ecoliers"

Equipment

Being equipped with colour televisions is one of the necessary conditions, but it is not enough in itself. In fact, for a school, the first condition favouring the use of the CNDP programmes is the poverty of the social and cultural practices of the pupils, the area and the conglomeration. This type of school is generally found in the outskirts of the large cities with numerous foreign children.

If there is strong social cohesion, receiving television broadcasts is an activity that competes with other activities which can develop inside or outside the school.

Information

Otherwise, it seems that knowing in good time when programmes are to be broadcast and information on their contents can make it possible to follow the programmes more or less regularly.

Naturally, an abundance of information is not necessarily synonymous with regular viewing by the target audience. Official publications (circulars, information notes, etc.) and specialised publications (the educational press, CNDP's review of "Texts and documents for the class", CNDP's "Ecole" etc.) aim to provide teachers, and parents, with information on the contents of the broadcasts.

Basically, teachers prefer to have supporting documentation rather than suggestions for pedagogic activity to be used in the classroom with their pupils. The nature of the information seems then to have more effect on whether they continue to take the programmes than on the channels of information themselves; it also seems that the diversity of sources of information has little effect on this continuity – rather, it is the nature of the information which is the determining factor. Information on the contents from their peers or other users has more effect on their deciding to use programmes than does any other type of information.

In contrast, administrative information (provided by a hierarchical authority – a supervisory organ) or involving advertising (inserts in newspapers – posters) had no effect in encouraging the teacher to use the CNDP programmes in the framework of his teaching.

Programme reception conditions

Almost all users of the programmes receive them direct, which is not particularly favourable to following them regularly and integrating them into a school course.

Quite frequently regular (compulsory) viewing takes place even though the conditions of reception are extremely unfavourable, i.e. moving of classes – arrangement of space in advance – bad acoustics – inadequate screen size – large audiences, as a high level of mobilisation of school resources and a high degree of cooperation between the teachers are required.

The opposite is also to be found, where the television is used irregularly without previous preparation.

The teachers using the programmes

It is interesting to note that the teachers who integrate television programmes into their teaching have a somewhat individual profile:

- strong masculine representation in an essentially feminine universe;
- frequent participation in introductory and retraining courses;
- marked technical nature (computer/audiovisual courses).

They make regular use of audiovisual media in their classes – 8 out of 10 teachers using a television set for other programmes in addition to those of the CNDP and regularly projecting slides; 7 out of 10 use sound. They have integrated data processing into their lessons, as 7 teachers out of 10 use a micro-computer in class.

Practice

Concerning what happens in the field, several components must be taken into account including:

- the choice made, or not made, by the teacher to use a particular broadcast, and to continue to take it throughout the year;
- the character of the teachers themselves who are using the broadcasts and their classroom activities with or without them.

Even though for a quarter of teachers who use broadcasts, television does not fit well into the progression of their class, the vast majority recognise that the broadcasts are a complementary documentary source which should not be neglected, and three-fifths think that television supports certain classroom activities.

The teachers expect educational TV broadcasts to serve as an element which will:

- awaken children's interest;
- emphasise ideas which have been dealt with in class;
- provide complementary information not available in the immediate classroom environment.

It is with these elements that the teachers choose, either by themselves or in discussion with their pupils, to integrate television into classroom activities. It is these elements which, when taken together, lead to teachers availing themselves more or less regularly of the broadcasts which are available. They are also used in half the cases because of the absence, at a local level, of information on the subjects which are being studied.

Classroom activities

Our target group is the class: that is to say the teachers and the pupils. These teachers have nearly all (three-quarters) attended courses in the past few years at various levels: basic (55 per cent), retraining (40 per cent) or higher training (5 per cent). Out of courses taken by every ten teachers, four have been in computing, one in pedagogy, and the rest in various types combining computing and/or pedagogy and/or audiovisual and/or linguistics etc.

In addition they regularly use audiovisual media in their classes. In fact, out of every ten teachers:

- eight use TV sets for broadcasts others than CNDP productions, and regularly use slides;
- seven work with sound equipment (record player, tape recorder);
- seven use a micro-computer in their classes;
- one uses film and/or radio and/or tape recorders;
- one has films made with a movie camera and/or a camera.

Productions by pupils are as follows:

- more than half the classes develop strip cartoons;
- nearly half the classes produce experiments;
- one-third of the classes produce computer programmes;
- one-quarter of the classes produce constructions and/or audiovisual montages and/or films, recordings and/or a journal.

In this context, the activities that follow from the broadcasts are normal scholastic activities, i.e. oral expression, documentary research, written expression, enquiries; there is very little modelling or technical manipulation. Within the more precise framework of a particular subject, these can be arranged into activities which are equally divided between:

- groups of actions which lead to an investigation,
- production of written works.

Broadcasts seem to start all sorts of activities, which are then dependent on the situation of the class and the teachers involved.

Conclusions

During the 1974 – 75 school year, the CNDP made a survey on the basis of a representative sample of public elementary schools. 1O years later, we thought that it would be interesting to compare the public image in the years 1974 – 1975 with that in the years 1984 – 1986.

Although the rural character remains dominant, a fall in the number of schools located in small towns and villages is to be noted.

This can be attributed to the closing of one-class schools. The small isolated country school grouping children from different age groups in the same classroom is disappearing in favour of ones grouping them according to standard at the small town level.

Hence the relative proportion of urban and rural schools assumes a different dimension if the pupil population is considered, not the schools themselves: the rural pupil population is declining compared to the rise in the number children living principally in the city suburbs.

The equipment of schools has also undergone a deep modification. This development in the material field has had an effect on the type of activity carried out in schools.

In 1974 – 1975, almost all classes had record-players, slide projectors, tape recorders and radios. Against this, fewer than half of schools were equipped with black and white television sets. 2/3 of the schools followed the CNDP radio programmes; 1 school in 7 used the radiovision dossiers (slide projector + radio programme), 2 schools out of 5 regularly viewed the school television programmes.

In 1984 – 1985, almost all were equipped with at least one micro-computer, 2/3 using as a colour receiver the monitor of the computer workstation. At the level of use, a decline in the use of slides and an increase in television viewing can be noted.

At first sight, user teachers in 1974 – 1975 resemble user teachers in 1984 – 1985: good professional experience (more than 1O years) as well as a permanent desire to update their knowledge (educational – technical – in their subjects). But their motivations for opting to use television programmes in class seems to have changed.

In 1974 – 1975, television was used by some teachers to break the isolation of the school (rural schools – large groups), by others to introduce collective work into early-learning activities.

At the moment, television programmes are mainly used as sources of information complementary to the courses being given, the video recorder making it easier to use them in lessons.

Promoting regular viewing of these programmes by the public depends mainly on:

- the recognition or otherwise of the value of the quality of the information offered;
- being able to choose the programmes;
- favourable or unfavourable reception by the pupils;
- setting up a reception group with colleagues, with pupils.

Giulio Carminati

"Il Video Filosófico" (The Philosophical Video) – An Example of Formative Evaluation

The study carried out by MESOMARK on behalf of the Servizio Opinioni of the RAI-Radiotelevisione Italiana, of which this document is a summary, represents a working instrument for the approach adopted by the RAI of merging two realities which have so far seldom come into contact: the worlds of high culture and mass communication.

Here the objective not only involves finding the correct means of linking such distant realms, but also identifying the original forms of expression which must inevitably still be evident once philosophical culture and the television medium have been linked.

The research provided a number of highly useful indications and critical suggestions: it created awareness of the need for an objective view of the reception of this multi-media project. The results of the study have not only confirmed the structural difficulties mentioned, but also serve as an incentive to encourage what seemed unachievable, i.e. explaining through visual images that most abstract of subjects, philosophical thought.

Background

The RAI, with the co-operation of the Italian Institute for Philosophical Studies responsible for the scientific co-ordination and the editorial collaboration of the Enciclopedia Italiana, has embarked on a far-reaching and demanding project entitled "Multi-media Encyclopaedia of the Philosophical Sciences".

This multi-media project consists of: a version on videocassette; a popular education version for the television broadcasts of the RAI's School Education Department (DSE); a television version for broadcast on our second channel RAIDUE; a version on audiocassette; one for the radio; an interactive version for computers and finally books, instalments and editorial series.

This multi-media format is intended to appeal to different sectors of the public heterogeneous in terms of background and needs: students of secondary education and university, and members of the public interested in important cultural themes.

Objectives and areas of investigation

In the initial phase of the project, a pilot or "zero edition" on the philosopher Parmenides was produced by Renato Parascandolo and Roberto Perpignani. With regard to this programme, the following was investigated:

- overall reactions to the "zero edition",
- opinions on production characteristics,
- attitudes towards the project generally,
- the willingness to follow or use the series, and the underlying reasons;
- the "image" connotations of the initiative;
- its repercussions on the image of the RAI.

Methodology

The nature of the research objectives required a qualitative methodology. With respect to the study on "Parmenides", two distinct targets were considered:

- professionally interested operators who are potential buyers and users of the videocassettes;
- the sector of the television public targeted for standard broadcasting of the programme, despite its format as a video cassette aimed at a specific audience rather than a programme designed for television consumption.

The survey was carried out in the following groups:

Professionals: Thirty-two individual depth interviews with teachers of philosophy in high schools and universities, with buying managers at libraries (in universities, other public bodies, and in cultural centres), with scholars and cultural figures.

Secondary education students: The video-recording was presented to two high school classes in an academic context. After the screening the views and ratings of the students were recorded in writing by means of a questionnaire; there then followed a collective discussion within each class.

The general television public: Two group discussions and 12 individual depth interviews were carried out. In the groups the respondents watched the programme *together*; their behaviour and comments were recorded during the viewing, after which the discussion took place. In contrast, the respondents for the depth interviews watched the video *alone, in their homes*, i.e. in an almost normal setting. The interviews took place within twenty-four hours of viewing. The respondents in this phase were selected from *people who, on account of their educational background or interests, were considered to be potentially most interested in the programme.*

Professionals as target audience

The results of the research led to a recognition of the professional target group, and that of students, as being the ideal audience for the video cassette tested, or rather the group which relates to it with the greatest ease and the most positive attitude.

The idea was welcomed by all the respondents with great enthusiasm and interest; they were amazed by the volume of the project and its organization. There was a genuine sense of expectation about a work which appears original and innovative with respect to the consolidated mode of approach, presentation and teaching of philosophy and its intrinsic aim to link and thus transform the specific (and abstract) verbal form of philosophical language with the pre-verbal (and physical) visual medium.

This idea is envisaged by some as being adopted for the Encyclopaedia of Philosophy of the 20th Century or the third course of philosophy, between historical methodology and practical themes.

Despite the initial enthusiasm, attitudes towards the study gradually became more critical. It should be stressed, however, that in many cases such attitudes stem from the "existential" roles nearly all of the respondents had in common. This part of the study focused mainly on teachers (high school or university), incapable of avoiding a professorial stance, as they all "understood" the programme to be a didactic tool.

They evaluated the cassette in the same way they would a text-book, using as their criteria its suitability for adoption, its validity, its completeness and its theoretical acceptability, open to analysis and criticism. They stressed the pivotal role of the teacher as well as the importance of his or her personal knowledge, and it is difficult to "measure" to what extent this attitude influenced the respondents' judgement. Its influence is certainly not insignificant.

There are a number of other factors contributing to a less favorable appraisal than was at first expected. In all the respondents, particularly those at the top of the educational hierarchy, a contradiction could be discerned between the verbal expression of the information content and the (tele)visual medium.

The respondents admitted the programme's cultural merits, i.e. the thoroughness of the treatment and the seriousness of the formulations ensuring an accurate and never trivialized presentation of Parmenides. However, the video presentation, as opposed to printed material, was viewed with suspicion because of its believed passive, spectacular, hedonistic and commercial nature.

The visual image was valued at best as an introductory step and a stimulus for the ensuing more rigorous journey through the avenues of thought.

The respondents were well aware of the intrinsic difficulties involved in transposing the abstract, dense language of philosophy into another completely different format. They realized that this transcodification process has not yet been perfected.

The visual images appear uniform and lacking in significance, suggesting with their fixity an impression of philosophy as an embalmed discipline, far removed from the world and the real interests of people – exactly the opposite of the impression that one would expect of an Encyclopaedia of Philosophy produced on video.

The assessment of the programme was clearly influenced by the natural inclination of the respondents to defend and underline their own professional function and image, with which the video was inevitably felt to be at loggerheads. In depth interviews certain respondents submitted scholarly dissertations on the various key readings of Parmenides' philosophical thought, which did not so much signify criticism of what they had seen but more a need for reassurance and self-assertion.

The ideal beneficiaries of the video were considered by the professionals to be high school students in their first year of philosophy, while the idea that it could be used as a refresher for their own use was rejected outright. The underlying attitude was that the television image has, for philosophy, a simplified value compared to the written word. The very nature of the book as symbols of knowledge, the way it is studied and treated, remain untouchable elements; the videocassette can only act as an introductory step, with secondary usage and functions.

One improvement would be to give the video cassettes a textual support (with extracts from the author being discussed, summaries, diagrams etc.). This would allow the students to focus on certain passages, would stimulate reactions from them, and would better align the audio-visual format with the dignity of text.

Students as target audience

The students' attitude towards the programme was definitely satisfying, 35 respondents out of 39 rating it in positive terms, but only a few considered it to be excellent. Viewing of the programme proved to be stimulating and instructive, and yet demanding.

The two main reactions were that it would "help the study process", "help to understand and develop criticism', and "help to know about Parmenides"; and, secondarily, "widen knowledge in a more pleasant way than the book", "stimulate interest", and that it was "more interesting and involving than the book". It serves as an aid to scholastic work, with an "iconic" process which is more enjoyable than written text alone or explanation by a teacher.

For many young people the programme at times appears difficult, even for those with a preliminary knowledge of the topic. It is exactly this aspect which excludes, in the students' opinion, the possibility of the cassette being of any use for broadcasting purposes; they consider it to be of little interest and hardly comprehensible for anyone attempting to watch it without a sufficient basic knowledge.

This restriction of the programme's usefulness is indicative of the attitude that the television medium is an instrument not readily associated with cultural issues or educational purposes in a scholastic-disciplinary sense.

The answers to the agreement scale submitted to the students confirm this image of the programme as a didactic tool, with a mainly stimulatory function. In this connection, certain problems were highlighted:

- a fragmented approach, not very much in keeping with the scholarly study of the subject normally imparted in a historical and traditional manner;
- some interviews were too fast, in view of the "density" and complexity of certain issues;
- it is advisable to provide written texts as didactic back-up material.

The students requested a more didactically-orientated cassette, with an expansion of the sections illustrating the thought of Parmenides, the historical setting and current themes.

An element viewed extremely positively was the reading of chosen passages from Parmenides on the screen, a direct and more personal approach to the philosopher. This would facilitate better understanding and assimilation, due to the "captivating" value of the rolling text and the narrator's voice.

The majority of comments clearly reveal two different types of request: the need to be profound and at the same time stimulating, maieutical. The latter is catered for by the (tele)visual nature of the medium.

The interviews reveal that the video appears to the students as a useful extension to lessons with a teacher and the personal, book-based study of the author. The video cassette should be supported by notes, scripts and summaries to guide the viewing process and limit its fragmentary and transient nature.

On the one hand, the students request expository methods based on established traditional elements of philosophical teaching (life, context, work, thought, etc.); on the other, they hypothesize about a medium encouraging an "open", productive, stimulating commitment.

It remains to be decided therefore whether to overlook the innovative values of this approach or whether to make the most of them, perfecting on the one hand the structure of the programme and at the same time familiarizing potential users (teachers and students) with the method and material, thus stimulating, by means of these aids, a different approach within the discipline.

The general public as target audience

Hardly any respondents expressed reservations about the theme of the programme and all found the programme to be interesting, valid and praiseworthy.

The "philosophical" show was welcomed as an essentially rich, committed, stimulating model, able to gratify the viewer's "cultured" identity and to respond to cultural needs and desires which normally remain unsatisfied.

These attitudes, however, often seem to bypass the programme itself and its concrete characteristics: they are often generalizations about the value of culture and knowledge.

A difference in response can be attributed to the difficulty encountered by the programme in steering a real middle course between cultural aims and the needs of "entertainment", although it must be emphasized that the "Parmenides" video cassette was not conceived for television broadcasting.

Some respondents found that the programme appeared as a collection of concepts (spoken rather than written, with the further difficulty associated with the transitory nature of the verbal idiom und the lack of opportunities to pause for reflection) and pictures, in which the latter are of secondary value.

Not only does the video little exploit the possibilities of the visual image, but some sequences or scenes (the interview in the "museum", the busts, the archeological remains) induce in the respondents a feeling of coldness which risks alienating rather than attracting some potential viewers, confirming a current view that would prefer to keep philosophy as an abstruse discipline far away from the everyday reality of human life.

The programme layout as a series of interviews, voices off-screen and pictures appeared to respondents to be the most simple, logical and traditional treatment for the issues tackled in the programme. This model employed in many popular education programmes seems the obvious choice for presenting language as specialized and complex as that of philosophy.

Moreover, the "telegenic" quality of some passages is low: their historical setting is not rich enough, they are occasionally a little static, creating an almost "radiophonic" effect for the people interviewed.

The respondents fully realize the difference in aim between "philosophical" animation (puppets etc.) and iconic comment (busts, statues, maps, ruins).

Since they respond more to an often-quoted need for emotion and liveliness, the scene relating to the journey of Parmenides and the viewing of the written text as the speaker reads it, appear particularly 'necessary', evocative and valid.

There is not only a problem with the complexity of the interviews (in fact some viewers appreciated certain passages and moments of particular density or "obscurity" which are emotionally involving, capable of creating an "interior resonance"): they are not so successful at establishing themselves as a perceptively "strong" part of the programme; their sequence does not appear so clear and linear.

In fact, the difficulty many respondents had in following the various theories examined contrasts with the popular educational, or purely educational, aim which all of them implicitly assign to the programme.

The overall project is, however, valued positively and acclaimed as a commendable willingness on the part of the RAI to go beyond searching for audiences, bearing in mind that the number of potential viewers for this type of programme will be very limited.

The respondents believe this type of commitment to be virtually a duty of "State" television, connatural to its institutional role of providing information; they believe that they should receive a service from the RAI differing from programmes based on commercial considerations, which caters for a broader perception of the viewer and his intellectual needs.

Tom van der Voort

"Watching TV Differently" – An Investigation into the Effects of a Media Education Series

The school television series "Watching TV Differently" was produced in order to teach 10- to 12-year-olds to understand what violence on television actually is, and to encourage them to evaluate more critically televised acts of violence, particularly those in crime series.

Educational goals

Partly on the basis of a preliminary study which had investigated how children between the ages of 10 and 12 perceive and experience violent films[1], the general objective was particularised in three specific objectives. The first goal was that children take violent actions in televised films more seriously. One particular aim of these television programmes was that child viewers should take the violent actions of the "good guys" less lighly; children of their own accord already took the violent actions of the "bad guys" seriously.[2]

The second objective was that children should react less unquestioningly to the violent actions they see on television, i.e. a reduced approval of acts of violence. This objective also focussed on the violence used by the "hero", because earlier research showed that most children spontaneously rejected the violence of "bad guys", whereas in the eyes of the children the good guys could do no wrong.[1]

The third objective was to make children more aware of the unrealistic nature of dramatised violence and of salient differences between violent behaviour on television and in real life. The television series was mainly concerned with police and detective series, because previous research showed that most children felt that crime series give a picture that is true to reality.[1]

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[1] Cf. Van der Voort, T.H.A.: Television violence. A child's-eye view. Amsterdam: North-Holland 1986

[2] Van der Voort, T.H.A.; Vooijs, M.W.; Bakker,D.: Kritisch kijken naar TV-geweld: Het effect van negen lessen. In: Pedagogisch Tijdschrift 9/1984; pp. 384 – 400.

The television series

The television series comprised six programmes of 25 minutes each. The programme showed interviews with experts (e.g. "real" police officers and detectives) and children, including extracts from existing violent television films.

An attempt was made to convince children of the seriousness of violence by confronting them with

a) police officers who had shot suspects, and told how deep an impression this had made on them;
b) victims of violence who told about the physical and, above all, the mental consequences they had suffered, and
c) a doctor who explained the medical consequences of various types of violent acts.

The unrealistic character of violent crime series was best illustrated by the commentary given by real police officers and private detectives on experts in crime films. The questionable legitimacy of most violent acts committed by the good guys in the film was made clear by explaining, among other things, that in reality police officers and private detectives are allowed to use violence only under extremely exceptional circumstances.

In addition to the six television programmes, the educational package included a students' booklet and a teachers' manual.

Research

The school television series was evaluated in two ways. Firstly, teachers' opinions on the series were investigated, both halfway through the series and when the series had been broadcast. Secondly, children's evaluations of the series were established, as well as the learning effects that the series produced.

An intermediate report on teachers' opinions

"Already when inviting the respondents to participate in group discussions, we found out that the series has evoked widespread enthusiasm" – that was the finding of a first investigation into teachers' opinions. The report's conclusion: "Unanimously, the discussion participants are very enthusiastic about the entire project. They feel it is extremely useful and necessary. It is with enthusiasm and admiration that they speak of the project organisation and set-up. They are under the impression that the project's objects are realised for a large part of the children. Only a few details were criticised."

Now this was really a nice report, even though it was an intermediate one. When it was formulated, only three of the six programmes had been broadcast. It was in fact a small-scale preliminary study, which intended to get a first impression of the evaluation and the use of the series by means of two group discussions with teachers who had seen the three programmes.[3]

The participants in group discussions opted for the series among others because they were worried about vandalism and violence on TV, in the street, and in school. One teacher put it this way: "I have a racy class with quite a bit of aggression. That's why I picked this programme, hoping the kid's aggressive behaviour will improve."

Furthermore, there was concern that the children are watching too much TV. Yet nobody expected that the series would encourage them to watch less. However, it was hoped that the youngsters would better learn to discern between television and reality and that their aggressiveness would decline. There is a general appreciation of the strong emphasis on the consequences of violence. Various aspects of them were new to the children, especially the psychological consequences of violence and the emotional after-effects it may have. Also, the teachers found and appreciated that the programmes stirred up many emotions. The handbook that comes with the programmes was satisfactory, and the students' booklet was found to be clear and well-organised. The homework assignments, however, were difficult to manage.

Two types of teachers

The final evaluation by teachers was done by means of a survey of a representative group of teachers who have followed the series and used the students' booklet. It was a quantitative survey, resulting in a traditional grade report instead of a word report.[4]

On the basis of their motives for participation, the teachers who were interviewed could be roughly divided into two groups. One half of the teachers primarily participated because they wanted the children to get a more critical approach to violent images seen on TV, whereas the other half mainly envisaged the youngsters to become less aggressive. For the first group, the series mainly had the function of a media-educational project, while the second group was hoping for a more general change of behaviour (reduced aggressiveness).

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[3] Plasschaert Quality in Research: Anders tv kijken, een kwalitatief vooronderzoek (Rapport No. 07002; on behalf of the NOT Foundation). Amsterdam: November 1987.

[4] Intomart: Resultaten van een onderzoek naar de schooltv-serie "Anders tv kijken'; (Rapport No. E87-76203/CvdB; on behalf of the NOT Foundation). Hilversum: Intomart 1988.

These different expectations were reflected in the grades given for the programmes' practicability. On average, the programmes were rated at over 7,5 on a scale going from 1 up to 10[5]; however, the "media educators" clearly gave higher rates than the "behaviour educators". Close to 80% of the "media educators", and 56% of the "behaviour educators", considered the rating 8 to be appropriate for the programme.

The more favourable judgment of the group of teachers who considered the series as a media education project can be traced back to the opinions they held on the extent to which the various project aims had been reached. Almost everybody was convinced that the series gave youngsters the insight that violent movies often paint a distorted picture of reality (a typical aim of media education). Moreover, a clear majority (76%) believed that the series induced children to see more clearly the serious consequences violence has in reality. However, the teachers were in doubt whether the students obtained a more critical approach towards the use of violence (which is an aim that may lead to changed behaviour). Only 42% of the teachers believed that this aim has been fully or largely achieved.

The programmes

Two thirds of the teachers participating in the survey had directly watched all or most of the programmes. In many cases the video was also switched on; three quarters of the schools videotaped the series.

Only 17% availed themselves of the opportunity thus acquired to repeat parts of the programme. In a slightly larger number of schools (27%), the video equipment was switched off for discussion purposes from time to time.

The programme set-up – movie excerpts followed by comments – was generally considered good. There was, however, some disagreement on the children's reactions shown in the programme; almost 30% had doubts as to whether these reactions were beneficial for the programme. The teachers felt that the children watched the programmes very intently, which went for boys even more than for girls. About 50% of the teachers noticed that kids became somewhat restless during violent scenes, but it seldom disturbed the general attention. The number of transmissions was generally considered just right.

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[5] With the following meanings: 1 = very poor; 2 = poor, 3 = highly insufficient, 4 = insufficient; 5 = nearly sufficient; 6 = sufficient, 7 more than sufficient; 8 = good; 9 = very good; 10 = excellent (translator's note)

The students' booklet

Thanks to the subsidy by the Netherlands Committee for Children's Stamps (NCK), which made it possible for the booklets to be sold for f. 0.50 each, a large number of teachers purchased the students' material to the series. No fewer than 75% of the users bought the booklet for the entire class; this result has never been achieved by any series of those offered by the NOT in the autumn of 1987.[6]

The effect achieved by the NCK subsidy was clearly illustrated by the reactions to the question whether the students' booklet would also have been bought at a price of f. 2.50. Only 40% of teachers answered this question in the affirmative. On the average, the rate achieved by the booklet is 7+.

According to most teachers (63%), students enthusiastically worked with the booklet; 29% found "some" enthusiasm. The drawings of TV images and explicit reverting to these images were considered to be the strong features of the booklet. The homework assignments again clearly turned out to be a weak point, so that approximately one third of teachers omitted them.

The manual

Nearly all the teachers who used the students' booklet also bought the manual (98%). In fact, the practicability of the manual to "Watching TV Differently" rated higher than any other manual issued for NOT programmes in the autumn of 1987.[7]

The special set-up of the manual was greatly appreciated: every left-hand page showed a page from the students' booklet including the right answers, and featured a concise explanation on the right side. No fewer than 94% of teachers call this set-up quite good or very good; the average rate was 8.

Evaluation by the children

In a third study, the children themselves were inquired as to what they thought of the project and what feelings it stirred up when they watched it.[7] With very few exceptions, they were very enthusiastic about the project. Almost unanimously they called the lessons "fun", some of the youngsters even refer to them as "great" or "super'. "I think they were super", states a child in form 7, "the very first lesson had me sitting right on the tip of my chair."

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[6] Van Zon, A.H.M.: Schooltv-series basisonderwijs/najaar 1987; deelname en beoordeling bruikbaarheid. Hilversum: NOT 1988.

[7] Van der Voort, T.H.A ; M.W. Vooijs: Effecten van de schooltelevisieserie "Anders tv kijken" (Rapport No. KM/88-E01; i.o.v. Stichting NOT). Leiden: RU Leiden 1988.

Some children had a special reason for their satisfaction: "It's nice, because at home I'm never allowed to watch "Miami Vice", but here I am." The students found the project not only to be "nice", but also "instructive", a qualification mentioned spontaneously by 36% of the children. The kids felt that the film fragments shown in the programmes constituted the most attractive parts. Some of them (21%) were unable to specify the part that was the most unpleasant ("Nothing, nothing was unpleasant"). A fairly large group felt that "the most unpleasant thing" was when they saw the abuse of humans in movie fragments; this kind of reaction, however, was covered by the aims of the project.

Any criticism mostly referred to the "talking" in the programmes: comments made by experts (13%) and children's reactions in the programmes (7%). When asked what they learned by the project, 77% of the children spontaneously answered that movies give a distorted picture of reality. Almost half of the students felt that they had learned what violence is and in what forms it can appear, and that crime fighters have to abide by certain behaviour rules. Altogether, the things the children felt they had learned from the lessons covered all project aims.

This does not mean that the viewing habits at home were changed. However, no less than 80% of the children confirmed that they were sometimes reminded of the lessons when watching TV at home. And 78% thought that the following statement is applicable to them: "When watching at home, some things I did not pay attention to before the lessons, are now obvious to me."

Effects

The actual changes the programme has brought about in the children's attitudes have been ascertained by comparing six school classes who have watched the lessons with a control group that had to do without. The investigation revealed that the project led to a clear decrease in the reality value the kids attributed to violent movies. After the lessons an even smaller percentage of the children felt that violent movies are realistic, compared to a control group consisting of students at a teachers' training college, who were given the same questionnaire.

Moreover, the project led to a considerable increase in knowledge. After the lessons, students were quite knowledgeable about the work of private detectives and the police, almost to the same extent as the control group of teachers-to-be who answered the same questions.

The educational effects of the project did not have a great deal to do with the children's backgrounds. Generally speaking, boys and girls, children from the 7th and the 8th grades, and children from a very different social background derived about the same amount of knowledge from the project. Neither was there much of a difference between the learning progress of children who are rather unaggressive and the aggressive ones, and of children who had good grades and those that got poorer ones.

Eleri Wyn Lewis

"Parablu" – The Pilot Study of the Programmes and the Support Material

"Parablu" is a series of 48 graded programmes for the learning of Welsh, researched and produced in 1989/1990 and first broadcast in September 1990 to meet the National Curriculum requirements for Welsh Second Language in infant schools throughout Wales.

This report presents the findings of the pilot study of "Parablu" conducted at 17 schools, 2 language units and 2 special units in locations throughout Wales. The main purpose of the pilots was to assess the suitability of the programmes in terms of both methodology and in facilitating language acquisition.

As the format of "Parablu" was different from that of previous language programmes in that it is non-didactic and did not aim to replace the classroom teacher, it was also essential to assess the training needs of the teachers for making effective use of the materials for language teaching.

Methodology

Selecting the sample

The Directors of Education in all eight Local Education Authorities in Wales were contacted by letter to seek permission to undertake a pilot study in at least two schools in every county in Wales. Permission was granted to conduct the pilot work in seven of the authorities. The Welsh Language advisers and the advisory teachers were approached to assist with the selection of the sample. All personnel involved in the project attended courses, preview sessions, and took part in discussions in respect of the series.

A good cross section of schools were required for the pilot study to allow "Parablu" to be fully piloted in a variety of circumstances and to prevent bias.

Sample selection criteria were: rural schools; urban schools; schools in socially and economically deprived areas; multi-cultural schools; non-Welsh speaking teachers;

Welsh speaking teachers; experienced WSL teachers; teachers opposed to Welsh; schools who do not normally make use of television in the classroom.

Teachers' Welsh-language experience

"Parablu" was primarily aimed at teachers whose ability to speak Welsh was limited. However, there is also another category of teachers in Wales who would find the series invaluable. These are teachers who can speak Welsh but have no experience or any training for teaching it as a second language. Once again it was important for teachers with a variety of language levels to pilot the materials for "Parablu".

32 teachers took part in the pilot study: 18 were non-Welsh speakers, 12 were native Welsh speakers, and 2 were Welsh speakers with teaching experience of the language. Of the 18 non-Welsh speaking teachers, 7 were attending courses organised either by their Local Education Auhorities or by Trinity College, Carmarthen, for learning Welsh and developing appropriate methodology to meet the needs of the National Curriculum at Key Stage One.

Training for the pilot

The training for taking part in the pilot study took the form of individual sessions with the classroom teacher and the associated advisory teacher from the LEA. "Parablu" and the accompanying material were introduced to all concerned including its philosophy, methodological issues incorporated into the production and the support material.

The training method was non-didactic and teachers were asked to incorporate the materials and language acquisition scheme into their existing programmes of study. Teachers were asked to look carefully at the language level of each programme, the level of interest generated and the language pace of the series. The bilingual support material had been designed to give guidance to teachers and to allow for flexibility so that teachers could incorporate the material into their own schemes effectively. This was also non-didactic. Each training session took between 1 and 3 hours, some sessions involving classroom activity.

Materials

Each school was provided with a set of VHS videotapes of programmes 1 – 12 together with a draft copy of the teachers' manual in both English and Welsh, and a set of line drawings of each character.

Duration of pilot testing

The pilot research lasted 4 weeks. The majority of the pilots were undertaken late during the summer term of 1990 and had to be reduced to 3 weeks. Pilots in Dyfed were undertaken during the Autumn term of 1990 and therefore lasted 4 – 5 weeks.

Results

A formal, written questionnaire was not used to record the teachers' response to the series during the pilot study. Formal questionnaires often plant answers or give direction to responses, an aspect to be avoided when evaluating the effectiveness of new material. It may also cause dissatisfaction among teachers if they had omitted an aspect prompted by the questionnaire. During the response interviews the discussion aimed at abstracting response to the language acquisition issues incorporated into the programmes and the support material.

Language acquisition issues in the series

The following aspects of language acquisition were identified by the teachers:

Repetition
Paralinguistic features, e.g., gesture and intonation patterns
Predictions
Singing
Drama, role play, mime
Reacting to situations
Variety of contexts and situations – real and imaginary
Diverse educational context – allowing for cross-curricular work

Role of the teacher

During the training sessions emphasis was placed on the importance of the teachers' role in creating a successful learning environment when using "Parablu" to teach Welsh as a second language. The teachers soon came to the conclusion that "Parablu" had not been designed to rival, overshadow or replace them in the classroom.

Controlling the programme

By the use of the programmes on video tapes the teachers felt more in control of the lesson than they would have if using the programme off-air. They were also able to use techniques such as 'freezing the frame', 'rewinding', 'fast forward'. 'volume control', 'sound track' and 'visual viewing', only to emphasise important points, to repeat aspects or the whole of the programme and facilitate successful language acquisition.

An additional advantage of using the programmes on tape was the ability to repeat the same programme several times before progressing to the next level. In this instance some teachers used two or three programmes which indicated that the programmes could be used as slow or as quickly as the teaching and learning demanded.

Preparing for use

Teachers: All the teachers involved in the study had previewed each programme thoroughly in advance of using it in the classroom. The accompanying teachers' notes proved to be valuable assets since the teachers were able to prepare themselves as well as their lessons in advance of viewing with the pupils.

Pupils: Preparation for viewing was greatly dictated by the individual programmes. Some of the earlier programmes required little introduction or preparatory work since the pupils were able to enjoy the viewing, learn about the characters with limited comprehension. The follow-up activities later followed by re-viewing and active viewing tasks enabled the pupils to comprehend. This had a stimulating and a motivating effect on the pupils leading to simple exercises for language acquisition.

Some more advance programmes, e.g. programme 8 titled "The Weather", needed thorough preparation and several uses of the programme often as a central resource and to consolidate the language work already accomplished.

Classroom activities

Viewing activities: Positive and active viewing

Active viewing is an important part of the language learning process when using television programmes to facilitate acquisition. Taking an active part in the viewing and follow-up activities can increase the enjoyment and indeed the satisfaction gained from viewing. "Parablu" has been designed to maintain children's motivation in both the themes of the series and in learning the Welsh language.

The teachers noticed that in the background there was a wealth of non-linguistic information which led to discussion, comprehension and language activities. The activities based on the themes and the language in each programme acted as aids to comprehension.

Many teachers in the pilot study used the techniques of stopping and starting the video tape to emphasise certain linguistic issues and especially to enable parts of the programme to be repeated – an important part of language learning. The technique of freezing the frame was extensively used by many teachers, again to emphasise certain points or to enable the pupils to familiarise themselves with the characters or the phrases that appear in print on the screen.

Aspects of the programmes encouraged pupils to respond verbally to visual cues in Welsh, for example if a wrong answer was given by one of the characters, the pupils would shout out the correct answer. In all the schools the programmes were used creatively, e.g., when a visual cue such as a printed caption on screen was combined with the spoken word in the classroom, or when the pupils were responding to paralinguistic cues in conjunction with the sound or music.

Language activities

Narrative recall

All the teachers involved in the pilot always discussed the programme viewed by the class to ask the pupils what happened in the programme that day. This enabled the teachers to assess the level of comprehension of a completely Welsh programme. In most of the schools the younger pupils were able to recall the narrative, the language and the profiles of the characters much better than the older pupils.

On the basis of narrative recall the teachers encouraged pupils to participate in dialogue games, role play and short drama, others were able to create a new context for the same language.

Oral work

The teachers encouraged the development of activities which enabled the pupils to practise the language presented in each programme. The language was seen to progress with the programmes and was used in a variety of contexts both fantasy and real-life situations in the classroom. Teachers used the Welsh language to greet the pupils, to give commands, to refer to the weather, conveying feelings etc.

Other verbal activities included:

- The characters and their roles were discussed, as well as the caravan; the play/drama/show; props and the theme.

- Role play and drama were used extensively to encourage pupils to speak in front of others and to give them confidence.
- Puppet shows and the use of costume and masks: Through these activities the pupils were able to hide their own lack of confidence since it was the puppet/character who was speaking and not them. Many of the schools had made puppet theatres where pupils could take an active part for this purpose.
- Singing and dancing were also used to enable the pupils to enjoy learning the language.
- A variety of games were developed in all the schools, word and picture matching games, board games, labelling games, active games, puzzles and jigsaw-type games. All were developed to enhance the teaching and facilitate the learning process. Each game had its own set of rules and instructions which were given to the pupils in Welsh. Most of the games were based on plots in the programmes and proved to be very valuable learning aids for young children.
- Reported speech: dialogue was used for this purpose when pupils developed a dialogue in pairs to demonstrate their understanding of the language or aspect of the programme.

Simulation exercise

"Parablu" presents the Welsh language through language functions which are dependent upon context, settings and roles. The teachers were able to use what is known as 'simulated transfer' by asking the pupils to act out a scene in a shop, in a home setting, in the caravan, all of them requiring the pupils to simulate the role of people in those settings. The dialogue was either based on or developed as an extension to that used in "Parablu".

All these activities undertaken to develop the oral component of Welsh Second Language demonstrated the fact that the programmes were an integrated part of the whole teaching and learning process in the pilot schools.

The most successful aspect of the oral work was the use of the language for playing in the playground. This demonstrated the fact that the pupils did not associate Welsh with a classroom activity only. It further demonstrated the enjoyment of learning a new language when it is presented in an entertaining and purposeful way, enabling the pupils to identify with the characters and thereby facilitating the learning process.

Writing

"Parablu" has been produced primarily to develop the oral component of the attainment targets for Welsh Second Language in the National Curriculum at Key Stage One.

However, as a result of using the programmes in the classroom many of the follow-up activities touched upon the second attainment target, which is Writing. The following are examples of some of the activities which contribute to this attainment target:

- Compiling class books based on the following themes: The Caravanners; "Parablu" narratives and theme; Likes and dislikes; The weather; I am book; Food; Clothes; The home; Animals; Where do you live?; Who are you?;
- Labelling (items in the classroom; the characters; pictures; cards; games; name tags; puppets);
- Charts – recording survey results or the weather etc.;
- Use of information technology to write stories, describe their favourite character and give reasons, Welsh activities, and for creative writing; – Writing new lyrics for the songs;
- Creating dialogues for short plays and puppet shows.

Theme work

Many of the teachers involved in the pilot study incorporated "Parablu" into their existing programmes of study or themes. The learning of Welsh using "Parablu" as the basis was successfully incorporated into themes such as "The Weather"; the "Circus"; "Travelling"; "Colour"; "Wheels and Circles"; "Food"; "Myself"; "The Family"; "Animals" etc.

Cross-curricular activities

The teachers found the suggested activities in the manual to be very helpful in designing cross-curricular work based on the series. One of the major problems encountered was the fact that the programmes inspired so many cross-curricular themes and activities that a whole term could be based on one programme. In language terms the pupils needed to progress and therefore the activities associated with each programme had to be limited.

The following are examples of some of the cross-curricular work undertaken during the pilot:

- making puppets (glove puppets, paper puppets, moving puppets on sticks);
- making a theatre out of a box and solving the problems of opening and closing the curtain and dropping and lifting the backdrop or scenery;
- making caravans with movable wheels;
- making a weather chart;

- making graphs and presenting collected data in various ways;
- making masks of the characters, animals, fish;
- games;
- making a model of the "Parablu" caravan with all its furniture, decoration and accessories;
- performing in a cardboard theatre;
- making food, tasting it, expressing likes and dislikes and recording the results
- making creative covers for books using a variety of designs and techniques.

There are many more examples of cross-curricular work which are too numerous to mention. The examples presented in this report represent a good cross section from all the schools involved in the project.

The support material

The support material was a draft version of the bilingual teachers' manual. All the teachers involved in the pilot study found the manual to be invaluable since it gave them a synopsis of each programme, the vocabulary and language patterns introduced in each programme, together with suggested classroom activities for both the enhancement and reinforcement of language acquisition and for cross-curricular work.

The fact that the whole package was bilingual enabled the series and the support material to gain the teachers' approval and in return the teachers gained confidence from the package. The majority of teachers realised that "Parablu" was an additional language learning resource and that by itself it could not possibly teach the Welsh language completely to children. During the introductory session the teachers were made to realise that a good supporting environment where the language heard and seen in use on the screen had to be practised through various activities in the classroom before "Parablu" could succeed.

The major criticism of the teachers' manual was the lack of the language cassette and cassette of songs and the music score for the songs, none of which were available at the time. Since the pilots were carried out both the cassettes are part of the support package schools can purchase. The suggested activities in the manual were well explored by all the teachers, especially the language work, but the majority preferred to develop their own cross-curricular work related to classroom topics or themes. The activities were always modified in response to pupils' language levels and abilities.

Everyone who participated in the project expressed satisfaction with the teachers' manual since its content appeared to be suitable, relevant, adequate, pitched at the right level and the fact that it was non-didactic was greatly appreciated.

The teachers

"Parablu" influenced three major aspects of the teachers' role:

1. A change in attitude toward the learning and the teaching of Welsh as a second language:
   The majority of the teachers progressed through their teaching careers without having the ability to speak Welsh, let alone teach it. For the first time the National Curriculum requires these teachers to teach Welsh as a second language and because they are unable to speak it or are required to speak it in their communities, this requirement poses a threat and for others a challenge.
   "Parablu" has been specifically designed for these teachers and although the language medium of the 48 programmes is Welsh, the English voice-over in the first six programmes, the bilingual manual and the language cassette with its accompanying script have all been produced to help those teachers with little or no knowledge of the Welsh language. All the materials are 'user friendly', easy to use and non-didactic to enable teachers to manipulate the package for their own purposes.
   Not all the teachers were in favour of the style of programming when given previews, but once they started using the programmes as part of their lessons they soon realised that they were invaluable language acquisition programmes. The pupils were able to relate to the theme and the characters effortlessly and consequently the learning was painless.
   All the accumulated factors helped to change many teachers' attitudes towards the learning and teaching of Welsh. The multi-media resources did not threaten their role in any way, it enabled them to remain in control of their teaching environments, and the manual gave them sufficient guidance to allow them to be several steps ahead of the pupils on each occasion. The preparation for using the series in the classroom was thorough in all the schools where the piloting was undertaken.

2. Increasing confidence:
   "Parablu" reduced the teachers' fear of the language and of their lack of expertise or specialism. They found the package to be an invaluable resource which met their needs.

3. Enhancement of the teaching:
   In every school "Parablu" brought something into the classroom that the teacher could not accomplish. The plots have been very cleverly designed and developed specifically for introducing new vocabulary and language patterns, each one adding a new element to the teaching. All the teachers said that it enhanced their teaching. The original songs in each programme were also well used as part of the language acquisition programmes in each school.

Language issues

The major language issues to arise during the pilot study were the North and South Walian accent problem and occasionally the lack of clarity in the speech of one or two actors.

In a language series of this nature which has been designed for teachers in the most anglicised areas of Wales, it is crucial to establish a language policy. To prevent confusion for very young children it was decided to present one format only when a word may have two formats. As the series develops the vocabulary increases and pupils gain confidence, it will be easier to present more than one format according to the actors' natural tongue.

The language units

The two language units involved in the pilot study made excellent use of all the resources in the "Parablu" multi-media resource pack. In the two units at Tregaron in Dyfed and Maesincla in Caernarfon, the pupils are drawn from primary schools within the catchment areas for specific secondary schools, and attend the language unit for a period of 50 days over two terms in Tregaron and one complete term at Maesincla. The pupils are newcomers to the area and attend category A primary schools. Both units follow a structured course for teaching Welsh which complements the themes or cross-curricular work undertaken at the feeder primary schools.

The aim of the pilot work in the units was to assess the effectiveness of "Parablu" in complementing the course implemented at the units.

In both instances "Parablu" fitted in well, although in different ways. The language function and patterns in "Parablu" were the same as those used in Tregaron. In Maesincla the programmes were not always used in order but were well integrated into the programme of study. The pupils once again identified with the characters who proved to be the major source of encouragement for learning the language. A good deal of cross-curricular work was undertaken using the characters, the theme and the caravan as the basis of the work. The songs from the series also proved to be popular in helping the pupils to learn Welsh. Both units had developed classroom corners devoted to the "Parablu" theme.

Conclusion

All the teachers approved of the series and its support material. Most of them were delighted with their pupils' response. They appreciated the fact that it had been thoroughly prepared and well planned, and that it fulfilled the requirements of Welsh Second Language in the National Curriculum at Key Stage One. The scope for developing activities related to the programmes was endless.

The majority of teachers were able to use the materials with minimal guidance after the initial introduction and produced very positive results. The pupils in every school identified with the characters in the series immediately. The characters became a major factor in facilitating the methodology and the acquisition of Welsh as a second language through this series.

Excellent use was made of the television and the support materials as educational resources in the classroom and in developing children's listening and viewing skills, an aspect of teaching recommended by the National Curriculum statutory guidelines.

There was a good deal of vocabulary the children did not understand but this did not cause concern for the teachers because the narrative and the acting conveyed the meaning. Immersion in the language was not considered harmful since the programmes are so entertaining and educational, with plenty of opportunities to reinforce the language during follow-up activities.

About the Contributors

Sandra Arnold has been Grampian Television's Education Officer since 1986, where she is responsible for commissioning, script editing and producing educational programmes in addition to supervising the work of three part-time Schools' Liaison Officers. A science graduate with a teaching diploma, she pursued a career in education, teaching in England, Canada and Scotland at pre-school, primary, secondary and further education levels.

Lambros Atteshlis is a Producer with BBC television (School television). He first joined the BBC in 1985 and worked as a producer in educational radio for 18 months before moving to television. From 1974 to 1985 he taught science in a variety of schools in inner London. The last few years of his teaching career were spent as an advisory teacher for the Inner London Education Authority.

Michael Bauchop, co-author with W. Bauer and H. Eckert, has been a systems analyst since 1972 and deputy head of the EDP department. He collaborated in the survey by the Staatsinstitut für Schulpädagogik und Bildungsforschung (State Institute for School Pedagogy and Education Research) in Munich.

Wolfgang Bauer, teacher (director of an institute), since 1974 media specialist for the Staatsinstitut für Bildungsforschung und Bildungsplanung in Munich (State Institute for Education Research and Education Planning), after 1983 he worked at the Staatsinstitut für Schulpädagogik und Bildungsforschung (State Institute for School Pedagogy and Education Research). Co-author (with Alfons Otto Schorb and Hubertus Eckert) of a "General Survey on the assessment and fulfilment of requirements for audio-visual appliances and media in the Bavarian Education and Training System".

Hans Bebermeier, school inspector, is a specialist in primary and secondary school curricular development as well as the development and organisation of teachers' continuing education programmes both in Germany and abroad. He is a lecturer for foreign languages at various universities. He has written a number of works on issues concerning media methodology for the teaching of English. He is a co-author of textbooks and school television programmes.

Diana Bentley works for ILEA as part of its Inspectors Based in School (IBIS) team, which is developing a "whole school" approach to inspecting and advising. She was previously the Research and Development Officer for the Secondary Science Curriculum Review and also taught sciences in secondary schools and sixth-form colleges. Among her research interests are non-verbal behaviour in classroom contexts and aspects of science education.

Paul Bottelberghs is a School Radio and School Television producer at the Flemish-speaking Belgian Radio and Television (BRTN) in Brussels.

Felix Brugger is a senior-school teacher and also works in teacher training. Since 1981 he has been the producer in charge of school television programmes for Swiss Television (DRS), and for two years he has held the position of Chairperson of the Education Board of a local authority in the canton of Zurich.

Giulio Carminati is presently Head of the Qualitative Research Sector of "Servizio Opinioni" (RAI's Audience Research Dpt). He is a full-time researcher with particular experience in surveys focusing on impact of TV on children, on women, on the elderly, or focusing on information and drug addiction, on educational programmes, etc. He is responsible for motivational research and primarily concerned with pilot tests of television programmes and formative studies.

Julie Cogill, Chief Education Officer; she was a teacher of mathematics for 14 years and a Senior Teacher at a secondary school before joining the BBC. In her original post as Education Officer she was responsible for the advice given to producers on mathematics broadcasts. With the help of a team of Education Officers, who have specialist subject expertise, she currently oversees the secondary sector across all curriculum subjects.

Michèle Cohen is a qualified language teacher and has worked for many years in educational television, in particular for adults. For several years now she has been involved with external and international relations at CNDP in Paris and also has been responsible for coproductions. She represents CNDP in the Working Party for Educational Programmes of the European Broadcasting Union.

Verena Doelker-Tobler was at Teacher Training College and studied remedial education. Since 1980 she has been the Head of the Family and Education Department of DRS. In 1985 the EDK/SRG coproduction model was launched to pave the way for collaboration between the conference of Education Directors and German-speaking Swiss Television DRS. In 1987, she worked out a collaboration statute between the institutions and organizations of adult education in Switzerland and German-speaking Swiss Television DRS.

Evelyne Dupin-Chizelle was a researcher in the Department of Pedagogy at the Centre National de Documentation Pédagogique (CNDP) in Paris. She left CNDP in 1991, and is now working for Mission Education Formation, Hôtel de Région in Poitiers.

Hubertus Eckert, philologist, studied Romance and Slavonic languages and philosophy, was awarded a Ph.D. Since 1974 he has been a media specialist and, like Wolfgang Bauer, after 1983 he worked at the Staatsinstitut für Schulpädagogik und Bildungsforschung (State Institute for School Pedagogy and Education

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Suzanne A. Forslund was at first a teacher and psycho-pedagogue, B.A. She worked for eight years at Radio Canada as assistant to the director (projects on the National Film Board of Canada). After her marriage she moved to Sweden, where from 1970 to 1978 she worked in education at TRU, a research committee in radio and television. Now she is working as a producer in educational television. Her research work is intented to obtain a M.A. degree in Educational Technology at the University of Montreal.

Titti Forsslund is head of Research and Evaluation in the Swedish Educational Broadcasting Company, where she has been a researcher since 1974. She holds a degree in pedagogy and educational technology from the University of Stockholm. She has published various reports on the use and function of radio and television in preschool, compulsory school and adult education.

Uwe Franke, senior teacher and qualified engineer, teaches at a vocational training college. Since 1979 he has been a teacher-cum-author at Hesse School Television. His interests and research areas are the history of architecture, the preservation of structures and buildings, ecological building, regenerative energy, on which he has written several works.

Werner Frei, a secondary and senior-school teacher, made the first video productions with his pupils twenty years ago. For ten years he has been giving courses on the subject, "Video – Possibilities and Limits". He is now working as an expert for the level of educational programmes at Swiss School Television DRS.

Jörg Goralewski started his professional career as a trainee in press and radio from 1966 – 68, continuing as a freelance journalist for a Cologne newspaper, the WDR and RB. Presently he works for the WDR, the DW and freelance film production. He studied history, sociology and ethnology at Cologne University. Since 1980 he has been a journalist and producer at WDR School Television; since 1987 responsible for foreign language programmes.

Philip Grosset was Head of Education and Religion at ATV, then he went to Central ITV where he has been since January 1980. He has produced several prize-winning school films largely in the area of health education. He is the author of eight books.

Maura Hanlon began her career in 1978 as a primary teacher. She gained a width of experience in multicultural schools and in areas of multiple deprivation in the Glasgow area. In 1986 she was appointed Research Officer at St Andrew's College of Education, Bearsden, where she researched pre-service and in-service issues in relation to teacher education. In 1989 she joined Scottish Television as Schools

Liaison Officer. She contributes regularly to national teacher education journals and to the Times Scottish Educational Supplement.

Uwe Hasebrink Ph.D., after studying psychology and German at Hamburg University, went on to lecture and research at the Department of Social Psychology of the same university. Since 1986 he has been a lecturer and researcher at the Hans-Bredow-Institut for Radio and Television in Hamburg, since 1988 the managing director. His areas of research: viewer and listener research, support research for new media, and media psychology.

Hanspeter Hauke studied Romance languages, English and political sciences in Freiburg, Germany. He holds a diploma in pedagogy, and was responsible for organising and holding English rhetoric and communication courses in adult education from 1984 to 1990. He has worked as a specialist and lecturer in media pedagogy, and was also an adviser at Südwestfunk School Radio in Baden-Baden. Since 1990 he has been a school television specialist at Südwestfunk in Baden-Baden.

Monika Herlemann is a teacher at a Munich primary school with a special training in dyslexic therapy and pedagogical-psychological school counselling. She lectures at the University of Munich and works freelance for School Television at the Bayerischer Rundfunk.

Rudolf Holzgräber studied history, sociology and journalism at the Hochschule für Politik, Berlin. After his studies he was employed by Sender Freies Berlin (SFB) where since 1970 he has specialised as an editor for programmes relating to social sciences and the history and appreciation of art. One of his main interests is the dramaturgical aspects of the relationship between culture and politics.

Rolf Horneij is Head of Programmes at the Swedish Educational Broadcasting Corporation, where he has specialised in foreign languages. He has been the project leader of many multi-media projects including TV, radio, printed material, teletext, in collaboration with study organizations.

Lothar Humburg Ph.D., is the Head of School Television at the WDR. After studying German, English and Education and a period as a foreign language assistant in Sweden, he joined the editorial staff of Telekolleg at the Bayerischer Rundfunk. Since 1972 he has been on the School Television editorial staff of the WDR.

Susann Inberg was the Deputy Head of Educational Programmes at the Swedish Programme Section of Oy Yleisradio Ab, the Finnish Broadcasting Company. She studied languages at the University of Helsinki before joining the Finnish News Agency in the late 60s. Then in 1976 she joined YLE and began producing programmes for the teaching of foreign languages mainly on radio. In 1980 she became Deputy Head of School Television and Radio and in 1989 assumed the post as Deputy Head of Educational Television. Since April 1991 she has been the

Commissioning Editor for documentaries and children's programmes at the same department.

Chris Jelley is the Controller of Children's Education and Religious Programmes at Yorkshire Television, chairman of the ITV Schools Television sub-committee and of the Educational Television Company. He is a former teacher of economics and BBC television producer.

Angela Jenkins spent twelve years teaching in England and Wales and two in Canada at all levels from 11 – 18, specialising in English, media studies and drama. She holds a B.Ed. degree and a master's degree in Economic and Social Studies of the Media. She has published several articles on educational broadcasting. She was also the producer of a radio programme on School Television and the White Paper in February 1989. In 1987 she was the Chairperson of the Teachers' Exchange Club in Wales and from 1991 – 91 the Chairperson of Media Education Centre in Wales.

Jacqueline Johnston, Chief Assistant BBC School Television, White City, London. She is currently commissioning editor and executive producer of Teaching Today with responsibility for scheduling programmes for School Television on BBC-2 and coordinating links with other BBC Departments such as Presentation, Press and Publicity, and Eductional Publishing. She began her career teaching geography and joined the BBC in 1981, first as an Education Officer based in Glasgow, and then as Senior Education Officer and Secretary to the Education Broadcasting Council for Scotland. In 1987 she became Chief Information Officer for BBC Scotland, moving to London in 1989.

Christopher Jones has been Deputy Head of Educational Broadcasting for the ITC (previously IBA) with responsibility for the ITV Schools service since 1973. He has also had a particular interest in the development of pre-school programmes and resources using new information technology in schools. Since 1989 UK broadcasting has been undergoing extensive political change and recently he has been involved in research and planning for the future Schools TV service.

Josephine Langham Brown is a freelance researcher and writer. She lived and worked in Canada for 20 years, teaching at the University of Saskatchewan. Then she researched for the National Film Television and Sound Archives of the Public Archives of Canada. Since 1981 she has been living in England, working for the BBC and the IBA. She is the author of several articles on the history of Canadian broadcasting; a radio research bibliography; "Teachers and Television, a History of the IBA Fellowship Scheme", co-author of a book on Language Transfer for the European Institute of the Media. She is presently working on a book for the British Film Institute on careers in film and television.

David Lee worked as a teacher in primary and secondary schools, as a lecturer in speech and drama and as a teacher trainer before joining the IBA in 1976. He has been a recognised member of the University of London Institute of Education and the Open University. As an accredited expert of the Council of Europe in the field of media and in-service training, he has served on a number of projects run by the Council, OECD and various European governments. He has particular interest in the European Dimension, modern languages, multicultural education, creative and expressive arts, economic awareness and education for enterprise and capability. His current responsibilities are intelligence-gathering and collation of information about curriculum change and development, and liaison with curriculum planners and in-service organisers.

Eleri Wyn Lewis, previously a teacher, took up educational research work, then spent seven years as a lecturer at the University of Wales. At present she is an Education Officer for HTV Cymru Wales, a regional independent TV company, with responsibility for research, producing/commissioning and publishing multimedia resource packs for educational broadcasts, marketing and running courses for initial teacher education, post-graduate training and in-service training.

Paulette Magnenat is a teacher. After completing her artistic, audiovisual and teacher training, she started working for French-speaking Swiss TV in 1983; she works as a delegated teacher, producing educational programmes. Engaged in many of the assignments linked to the general running of "Magellan", she is concerned more particularly with programmes and series devoted to education in the media. She has involved "Magellan" in several international coproductions. Paulette Magnenat repesents the TSR in the Working Party for Educational Programes of the European Broadcasting Union.

Terry Marsh, Head of BBC School Television, was awarded a B.Ed. in Maths and Physics and an M.Sc. in Social Research. She taught mathematics in Trinidad and ran a children's nursery for four years, then lectured in Statistics and Computing at Surrey University. In 1979 Terry joined the BBC as a schools audience researcher, transferred to production in children's television, then moved on to Continuing Education producing such programmes as Electronic Office, Micro Live and Electric Avenue. She has also presented television science series.

Paul Martin M.A., B.Sc., has been a producer in the Education Department of Central Independent Television plc for some twenty years, specialising in the production of television programmes and associated computer and print packages to support the teaching and learning of science and mathematics in school. Formerly a science teacher with the Inner London Education Authority, he has acted as a consultant to UNESCO in Africa and held the Imperial Relations Trust Bursary for a study of multi-media in Australasia. He has been nominated for outstanding achievement by the British Academy of Film and Television Arts on three occasions and holds awards from a number of scientific and educational organisations.

Manfred Meyer is information specialist and deputy head of the Internationales Zentralinstitut fuer das Jugend – und Bildungsfernsehen (IZI), a documentation and information centre at the Bayerischer Rundfunk (Bavarian Broadcasting Corporation), founded in 1965. His main interests are: forms and functions of educational television and radio programmes, educational broadcasting research, television for children and young people, research into the effects of broadcast media.

Ursula Möller-Rösch was from 1978 – 1990 an editor at the School Television Department of the WDR in Cologne. Her two-year trainee period at a daily newspaper in the Ruhr was followed by her studies in German, history, theatre studies, and education at Cologne University. She was also a freelance press and television journalist during this time. She completed her teacher training in German and history, writing a dissertation on the application of school television broadcasts in history lessons. A teacher for many years, she then assumed a position as a producer for the series "Politik aktuell". In 1980 she became WDR's Head of Media Education.

Robin Mudge is the senior producer for science in the BBC School Television Department. He joined the BBC in 1980 and has worked as a producer on Tomorrow's World – the UK's most popular science programme, and in the BBC Continuing Education Department. From 1975 to 1980 he worked as a science teacher for the Inner London Education Authority. Both Robin and Lambros Atteshlis are working on interactive television products for the new CD-I format.

Andor Nagy received his doctorate summa cum laude from Kossuth Lajos University in 1965. A lecturer in education for over 30 years at Eger Teachers' Training College, Hungary, and the Head of the Department of Education since 1975, he has researched techniques in preparing educational films. He has been a member of the Qualifying Committee of the Hungarian Academy of Sciences and a consultant for the Educational Department of the Hungarian State Television Company. His research has been published in three volumes and in more than 100 studies and essays. He has received three awards from the Hungarian State Television Company for his work.

John Nelson has been the Manager of International Activities for AIT since 1979. He holds a B.S. in Education and Broadcasting from Ohio State University and has taught in primary and secondary schools. He was a classroom liaison specialist for educational television stations before becoming the manager of WCAE-TV.

Horst Neumann was trained as a secondary-school teacher in Berlin, where he taught German and political education. Since 1970 he has been working as a pedagogical specialist and adviser for school TV at the "Landesbildstelle Berlin", the regional media centre. His main tasks are the elaboration and editing of print material for teachers and pupils to back up programme series of Berlin School Television.

Brian Nixon joined Granada Television in 1978 after twelve years in the classroom and university lecture theatre. His involvement with computer-based active-learning packages began in 1984 when Granada launched a major series about the microcomputer in the classroom. Presently, his job is to oversee the company's schools output – currently about sixty programmes a year.

Christian Raynaud was trained in audio-visual techniques in the field of community art centres. He later became a trainee presenter and was an assistant to the regional technical and educational adviser on cinema, popular education, and the French Ministry for Young People and Sports. He was awarded the INSAS diploma in 1974 (National Superior Institute for Entertainment and Broadcasting Arts Techniques, Brussels), and in 1975 he joined the RTBF. His first appointment was head of the Broadcasting Continuity Production Department, his principal programmes being a series on house decoration, the magazine "Mobiles", and "Seniorama", a magazine for senior citizens. He has been in school television since 1985.

André Rooymans has been an educational producer at NOT (Dutch School Television) since 1983. After working as a teacher for eleven years he started producing school television programmes for music and media education. After developing series about violence on television and the news, now a third series is being prepared about stereotypes in commercials, soaps, etc. This series will be broadcast in 1994.

David Rosevaere has recently retired from the BBC's School Television department after nearly 30 years of producing mathematics programmes. He is the Chief Organiser of the Topic Group TV in the mathematics classroom for the 7th International Congress on Mathematical Education in Québec in 1992.

John Russell is BBC's Senior Education Officer in Scotland. After University, he worked for Proctor and Gamble in Field Marketing and then taught geography for twelve years. He was an Assistant Headteacher at a secondary school in Lanarkshire before joining the BBC in 1985. His professional interests are the management of learning, training and man management.

Michael L. Scarborough, Senior Education Officer, Yorkshire Television. After an educational career which included youth leadership, head of English in a new secondary school, lecturer in English in a College of Education and warden of an outdoor activity centre, Michael Scarborough held an IBA Research Fellowship and produced the report "The Educational value of non-educational television". At Yorkshire Television, he has contributed to such series as "How We Used To Live" and initiated new programme support resources. He is at present running the Yorkshire Television Video History Project and exploring new educational developments for CD-I and CD-Rom technology.

Jos Scheurink studied theatre studies at Amsterdam University, when he was actively involved in theatre as an actor and producer. Then he joined television as a drama producer. For two and a half years he has been working for NOT's School Television Weekly News, first as a producer and now as director.

Kees Schippers is presently the Director of NOT, Dutch School Television. He has twenty years of experience in education, where he started as a primary school teacher and finally became the principal of a large secondary school. He has a degree in Geography for Education. The positions he has held include that of President of the EC Committee of School TV and Teaching Director of the Basel Seminar for School Television.

Tom Stanier joined the BBC since leaving university. He specialises in programmes for the primary age range, and several of his programmes have been nominated for educational awards. For the last four years he has been an Executive Producer, but has just left the BBC in order to get back to the coalface as an Independent Producer. In his spare time he writes musicals and songs.

Chava E. Tidhar is the director of research, evaluation and in-service training at the Instructional Television Centre (ITC) in Tel-Aviv. She was one of the pioneers at ITC, founding the first research department to play an integral role in the development of instructional television programmes. Her professional research experience includes consumer, advertising, marketing, social and demographic research in Israel and England. Dr. Tidhar was formerly a lecturer in the Faculty of Television and Film at Tel-Aviv University and is currently a lecturer at the School of Education, Bar-Ilan University.

Gráinne Tobin is a lecturer in the Continuing Education Department of Lurgan College of Further Education, Lurgan, Northern Ireland. She received her master's degree in education at the University of Ulster, specialising in media education and in adult access to education through open learning. She is currently working in the adult education section of an EC Anti-Poverty Programme project in which her local education authority is a partner.

Pierre Trincal, previously assistant private secretary at the Ministry of National Education, has been Director General of the CNDP since March 1990. After leaving the ENA (college for senior civil servants) in 1965, he chose to devote his administrative career to education. He has occupied responsible posts, notably in the university sector (creation of autonomous universities, libraries, the provision of welfare meals and accommodation for students).

Kirsti Tulonen-Seppänen became a primary-school teacher in 1969, then worked as a teacher for various short periods between 1966 and 1980. She worked in Finnish school radio (Yleisradio) from 1969 – 1972, and has been a producer in school

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television (Yleisradio) since 1973. Apart from producing a few series for older age-groups, she has regularly taken care of the weekly transmission for the age-group 7 – 8. She has made programmes and series on various subjects and themes such as music, art, social education, science and – preferably – environmental and global problems.

Elizabeth Tworek-Müller holds a doctor's degree in philology. She has been a manuscript author for BR for many years. Until recently she taught German, history and social studies at the Benedictine grammar school in Ettal. At present she is working freelance for the Bayerischer Rundfunk.

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List of Acronyms

A2 (A2F)	Antenne 2, France
ABC	Australian Broadcasting Corporation
ARD	Arbeitsgemeinschaft der öffentlich-rechtlichen Rundfunkanstalten der Bundesrepublik Deutschland, Germany
BBC	British Broadcasting Corporation, United Kingdom
BBC/OUPC	BBC Open University Production Centre, United Kingdom
BR	Bayerischer Rundfunk, Germany (FR)
BRT	Belgische Radio en Televisie, Belgium
BRTN	Belgische Radio en Televisie, Nederlandse uitzendingen, Belgium
CEN	Central Independent Television, United Kingdom
C4	Channel Four, United Kingdom
CNDP	Centre National de Documentation Pédagogique, France
CPB	Corporation for Public Broadcasting, United States
CST	Ceskoslovenská Televize, Czechoslovakia
DR	Danmarks Radio, Denmark
DRS	Radio- und Fernsehgesellschaft der deutschen und der rätoromanischen Schweiz, Switzerland
DW	Deutsche Welle, Germany
EAC	Education Advisory Council, United Kingdom
EBC	Education Broadcasting Councils, United Kingdom
EBS	BBC Educational Broadcasting Services, United Kingdom
EBU	European Broadcasting Union
ERT	Elliniki Radiophonia Tileorassi SA (Greek Radio and Television), Greece
FR3	France Régions 3, France
GTV	Granada Television, United Kingdom
HR	Hessischer Rundfunk, Germany
IBA	Independent Broadcasting Authority, United Kingdom
IETV	Israel Educational Television, Israel
ILEA	Inner London Education Authority, United Kingdom
ITV	Independent Television, United Kingdom
ITC	Independent Television Commission, United Kingdom
IZI	Internationales Zentralinstitut für das Jugend- und Bildungsfernsehen, Germany
JRT	Jugoslovenska Radiotelevizija, Yugoslavia

MBA	Malta Broadcasting Authority, Malta
MTV	Magyar Rádió és Televízio, Hungary
N3	„Nordkette", Norddeutscher Rundfunk (NDR), Germany
NDR	Norddeutscher Rundfunk, Germany
NHK	Nippon Hoso Kyokai, Japan
NOS	Nederlandse Omroepprogramma Stichting, Netherlands
NOT	Nederlandse Onderwijs Televisie, Netherlands
NRK	Norsk Rikskringkasting, Norway
OECD	Organisation for Economic Co-operation and Development
OFRT	Organismes Français de Radiodiffusion et de Télévision, France
OIRT	Organisation Internationale de Radiodiffusion et de Télévision, Czechoslovakia
ORF	Österreichischer Rundfunk, Austria
PBS	Public Broadcasting Service, United States
PRT	Polskie Radio i Telewizja, Poland
RAI	Radiotelevisione Italiana, Italy
RB	Radio Bremen, Germany
RTB	Radiotelevizija Beograd, Yugoslavia
RTBF	Radio-Télévision Belge de la Communauté Française, Belgium
RTE	Radio Telefís Éireann, Ireland
RTP	Radiotelevisão Portuguesa, Portugal
RTSR	Radio-Télévision Suisse Romande, Switzerland
RTVE	Radiotelevisión Española, Spain
RUV	Rikisutvarpid-Sjonvarp (Islandic State Broadcasting Service – Television), Iceland
RVU	Radio Volks Universiteit; Educatieve Omroep, Netherlands
SDR	Süddeutscher Rundfunk, Germany
SFB	Sender Freies Berlin, Germany
SR	Saarländischer Rundfunk, Germany
SR	Sveriges Radio Ab (Swedish Broadcasting Corporation), Sweden
SR/UR	Sveriges Utbildningsradio Ab (Swedish Educational Broadcasting Company), Sweden
SRG	Schweizerische Radio- und Fernsehgesellschaft, Switzerland
SSR	Société Suisse de Radiodiffusion et Télévision, Switzerland
STV	Scottish Television, United Kingdom
S3	Südwest 3, Germany
SWF	Südwestfunk, Germany
TELEAC	Stichting Televisie Academie, Netherlands
TRT	Türkiye Radyo-Televizyon Kurumu, Turkey

TRU	Kommittén för television och radio i utbildningen, Sweden
TSI	Televisione della Svizzera Italiana, Switzerland
TSR	Télévision Suisse Romande, Switzerland
TVE	Televisión Española, Spain
UKIB	United Kingdom Independent Broadcasting, United Kingdom
UER	Union Européenne de Radiodiffusion (EBU)
UTV	Ulster Television, United Kingdom
W3	West 3, Westdeutsches Fernsehen (WDF), Germany
WDF	Westdeutsches Fernsehen, Germany
WDR	Westdeutscher Rundfunk, Germany (FR)
YLE	OY Yleisradio Ab, Finland
YTV	Yorkshire Television, United Kingdom
ZDF	Zweites Deutsches Fernsehen, Germany

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